

# MICHIGAN FARMER.

Devoted to Agriculture, Horticulture and Science.

Organ of the State Agricultural Society—the only Agricultural Journal in Michigan.

{ Established  
in 1843. }

DETROIT, AUGUST, 1863.

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## THE MICHIGAN FARMER, A MONTHLY HOME JOURNAL.

Devoted to Agriculture, Horticulture, Stock-Raising Mechanics, and all things pertaining to the Farming Interests of Michigan, and Agriculture in general. \$1 per year.

**WILLIAM S. BOND, GEORGE SNYDER,**  
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## OFFICERS OF THE STATE AGRICULTURAL SOCIETY FOR 1863.

President—BENJAMIN FOLLETT, Ypsilanti, Wash-  
tenaw County.

Treasurer—PHILO PARSONS, Detroit, Wayne  
County.

Secretary—R. F. JOHNSTONE, Detroit, Wayne  
County.

### Executive Committee.

Members whose Terms expires December 31st, 1863.

Walter J. Baxter, Jonesville, Hillsdale County.

A. S. Welsh, Ypsilanti, Washtenaw County.

Manly Miles, Lansing, Ingham County.

J. A. Walters, Kalamazoo, Kalamazoo Co.

Sluman S. Bailly, Grand Rapids, Kent County.

E. S. Moore, Three Rivers, St. Joseph Co.

T. T. Lyon, Plymouth, Wayne County.

Members whose Terms expire December 31st, 1864.

W. G. Beckwith, Cassopolis, Cass County.

A. S. Berry, Adrian, Lenawee County.

James W. Sanborn, Port Huron, St. Clair Co.

Charles Dickey, Marshall, Calhoun County.

C. W. Greene, Farmington, Oakland County.

John Allen, Plymouth, Wayne County.

E. G. Morton, Monroe, Monroe County.

## GENERAL PROGRAMME FOR THE STATE FAIR OF 1863.

ENTRIES.—All articles or animals for competi-  
tion must be entered at the Secretary's office, in  
conformity with the rules and regulations. These  
entries may be sent to the office of the Secretary,  
at 130 Jefferson avenue, Detroit, at any time  
previous to the 14th of September. All entries  
after that date must be made at the office of the  
Secretary, Kalamazoo House, Kalamazoo, or on  
the fair grounds in that city. All articles of  
machinery or implements for trial should be en-  
tered, and are required to be on the ground by  
the 21st of September.

THE PLOWING MATCH AND TRIAL OF IMPLE-  
MENTS Will commence on the first day of the  
fair, under the direction of the special committee.

ON WEDNESDAY, the viewing committees will  
enter upon their duties, and the EXAMINATION OF  
CATTLE, According to their different classes, will  
commence in the cattle ring. On the afternoon  
of the same day, the TRIAL OF THE CLASSES OF  
YOUNG HORSES will be held on the track.

On Thursday, the Trial of the several classes of Horses will commence, and the ANNUAL ADDRESS will be delivered at 3 o'clock, P. M.

On Friday, the TRIAL of HORSES for CITIZENS' PURSES and the Annual Meeting of the Society for the ELECTION OF OFFICERS will be held.

#### WOOL AND ITS PROSPECTS.

The prices of Wool have not changed since our July issue, bringing to-day (Aug. 22),

For pure blood Merino, - - - - 60a62c.

"mixed do do - - - - 55a58c.

"Canadian long clean coarse, - - 45a50c.

Growers appear determined to hold for better prices, and buyers do not offer any advance, consequently there is not a large amount changing hands. The above prices rule generally throughout Michigan.

The following lengthy article in the form of a circular has been issued from Philadelphia, and copied in the Western papers, without any signature, the writer says he is "a dealer of forty years experience," we should like to know his name:

PHILADELPHIA, Penn., Aug. 5, 1863.

"To the growers and producers of wool, it is well known that the leading dealers and manufacturers for a number of years past have had their agents, either traveling or resident, buying up all wool if possible within a month or six weeks after the clip is shorn. It is also a well known fact to Eastern producers, that the large dealers, who have hitherto controlled the market, when out of stock, and wishing to buy, invariably cry down the prices, after which, having accomplished their purposes and laid in large supplies, their tune changes, and they use all their efforts to drive it up again before they sell. Several leaders who have been very large operators have lately retired with large fortunes made thus from unsuspecting and too confident wool-growers. Farmers and producers of wool, throughout the West, as well as the East, should hereafter refuse to allow themselves to be the victims of the dealers and manufacturers by selling their wool within a month or two after shearing, at whatever prices they may be pleased to give. A well known Philadelphia wool operator, Hanson Robinson, after having lost very large amounts of money in the panic of 1857, has but lately retired with a princely fortune made by buying just after shearing, and holding his wool for a rise.

"Many and powerful are the efforts made to break down the prices of wool, chief among which are the constant parade in the journals of the importations of foreign wools, holding them in terrorism before the American wool-growers, as if it were not well known that all such wools

from their coarse qualities, are unfit for the many manufactures of wooleens, save carpets and blankets.

"Among the efforts made to lower the price of wool is the course of the U. S. *Economist* (which professes to be the organ of the dry goods and wool interest), which, after having written wool up, going so far to prove all the wool of the present clip will be wanted, as to advise editorially in its issue of the 28th of February last, 'That there ought not to be a single healthy sheep slaughtered in the Northern States, and in the same editorial writing thus: 'Farmers of the West, the demagogues have given you their advice; now let us give you ours. Buy every sheep that your means will enable you to buy. Sell none, nor kill any except the aged.' Arguing that all the wool that could possibly be produced in this country would find ready sale at high prices. Now its tone is altered. It can scarcely depreciate wool fast enough (all this when the grower and producer have sold out), and its friends, the dealers have laid in large stocks at low prices, when presto, up go the figures, and the same cry of great scarcity is again sounded throughout the land, thus enabling its friends and confederates to pocket immense sums at the expense of the growers and producers.

"That American grown wool must and will bring high prices this coming Fall and Winter is based on the following reason:

"1st, The vast expansion of the currency making money so plenty that it can easily be had at 5 per cent. and even less on good security.

"2nd, The small stock of cotton, which if peace were proclaimed to-morrow would at once be consumed, and no more could be had until after the close of the next growing season, a year hence.

"3rd, The vast trade of the Mississippi River. Let but the river be open, such is the actual scarcity of woollen goods South, that all the stocks in the Eastern States would be swept off and carried there.

"4th, The wants of the army. It has been proved by experience that a soldier in active service uses three times the clothing he does in civil life, and that it must be had for the new levies of three hundred thousand men, which at the standard estimate of twenty-five pounds of wool for each soldier equipped, would itself consume seven million five-hundred thousand pounds; then in addition estimate those now in service, who must be re-clothed, would at the lowest estimate consume twenty million pounds, and all this out of this year's clip, for 1863.

"Farmers and producers of wool, do not be led astray by the croakings of parties interested in breaking down the prices of wool. Even they

say wool cannot be lower than the prices they are offering, and by your holding on you cannot therefore lose, but may, and no doubt will get much higher prices as soon as they find their game unsuccessful. They must have the wool, and they know it; you should know it also. Even the *Detroit Free Press*, which seems in the interest of the wool buyers, in its last issue, says: 'At the present moment there is more of a determined effort to crowd prices down than any time this year.' Resist but the systematized efforts to break down prices. Wool, as they say themselves, cannot go lower than they are now offering, so that you cannot lose by holding on. Remember that by selling now you lose all the advantage which should be yours, and which undoubtedly you would obtain by keeping it until the Fall or Winter coming. There is no reason why wool should all be sold by producers during the first month or two after shearing. There is a constant and regular consumption of it all the year, and stocks could remain in original hands quite as well as in speculators, until wanted by manufacturers.

"From all the causes here enumerated as well as many others, no doubt can exist that fair average wool will bring in a month or two hence, and during the winter, from 80c to \$1 per lb, or even higher. There is more real cause for the advance of wool than that of any other article. It must be had. It cannot possibly be done without.

"The disappointment and rage of the speculators and manufacturers of the East is now spending its fury at their failure to obtain control of this year's crop of wool, as has been their custom in years gone by, at their own prices. It will exhaust itself, and they will find themselves compelled by stubborn truths to come in.

"Growers and producers of wool do not be frightened. You know your wool is capital invested; that it will all be wanted; that no more than the present supply can be had till next year; that woolen goods are low in stock, and vast quantities will be required; that cotton is high—sixty to sixty-five cents per pound, ordinarily ten cents. That if all the cotton remaining in the South were let loose to-morrow to supply England and France, as well as ourselves, and no more to be had until the close of next year, it would at once be bought up, and held for its scarcity, on speculation.

"One of the most important considerations effecting the price of wool is the fact, taking the very highest estimate of the entire wool crop in the whole United States for this to be seventy-five millions of pounds, (twenty-five per cent. increase on the crop of 1860, as per census returns,) that sufficient woollens must be produced to clothe the

loyal population of the United States, in number twenty-three millions. The consumption of woollens by the now disloyal States should also be added, and for which demands are now existing as fast as they are reclaimed, and opened for trade.

"The very lowest estimate made by the best authorities, that each man, woman and child consumes yearly, in person, an average of ten pounds of wool, would require the enormous amount of two hundred and thirty millions of pounds. Deduct from this the American crop, as above, of seventy-five millions, and the vast quantity of one hundred and fifty-five millions of pounds remain to be furnished in foreign cloths or wool, under a very high tariff. Add to this the immense amount of wool consumed in carpets, blankets, flannels and other woollens, not personally worn and it will at once become apparent that this year's clip of wool must command very high prices to meet the demand. The above are stubborn facts, which in a very short time will be manifest to all, and which he or they who are now frightened into selling their wool will deeply regret.

"All of the above has been written without any reference to the complications of our government with England and France, which should they unhappily culminate in hostilities, would send up far beyond the highest anticipations now dreamed of."

#### EASTERN WOOL MARKET.

WOOL.—The U. S. *Economist*, Aug. 15th says: The woolen goods market has been quite active this week, but this has had no inspiring effect on the Wool market. The Wool market remains dull and unsettled, and nothing but what is wanted for immediate manufacture will be purchased, and this only in small lots. The strong probability that Charleston will fall soon and that there will be a further decline in gold, inclines purchasers to delay operations as long as possible, in hope that these events will enable them to buy at more advantageous terms. On the other hand, holders of foreign wool talk about high prices and strong markets abroad, with possibility of trouble with England on account of her unfriendly acts toward our government. Importers, however, are anxious to realize and would submit to a concession, and sales of foreign wool are made that are not made public, lest the knowledge of these transactions should lead domestic wool-growers to enter into competition with the importers. It is for the interest of importers that domestic wool-growers should hold on for high prices and not throw their wool upon the market until late in the season, and every possible means is used by this class of trade to induce domestic owners to



hold out until late in the season for high prices, in order that importers may be able to sell out their stock at high rates.

In Domestic Wool there are very few transactions to report, and there is no change in market values. The attention of buyers this week was absorbed by the auction sale of foreign. Fleece may be quoted at 60a70c, and pulled at 60a68c. In the country, growers are holding for late prices, 60a60c, and may realize this, as manufacturers must have the clip of domestic wool eventually, but events might happen which would compel growers to accept a lower range of prices, and it is the probability of the events that causes manufacturers to delay their purchases. The future of the domestic wool market is enveloped with so much doubt that we will not venture to make any suggestions in addition to those which we have given in previous reports. If we had wool to sell, however, we should be disposed to realize present market values, and the risk of higher prices in the future.

The subject can be argued with a deal of ability on both side of the question, and in either event domestic growers will realize handsome prices. It is worth while to heed the public impression, that Charleston and Mobile are destined to fall before the 1st of January, and if they do, there will be such a demand from Europe for our government securities, which pay double the European rate of interest, that exchange will flow in so freely as soon to bring gold near to par, and as gold declines the prospects for high prices of merchandise diminishes.

The sales for the week, as far as reported, include 50a60,000 lb Fleece at 65a70c; 10,000 lb Pulled at 60a70c; 100 bales Cape, in lots, at 35a35c; 50 bale Cordova over 35c; and some considerable lots of foreign of various descriptions, in lots of 10a20 bales, which in the aggregate foot up large, the particulars as regards quality and price the sellers were unwilling to report. We learn, however, that they in part include 25,000 lb Mestiza, 150 bales low Buenos Ayres, 150 bales Donskoi, and some 2a300 bales Cape, all on private terms.

**KILLED BY LIGHTNING.**—Jessup Wood, Esq., of Lodi, lost 14 sheep by lightning on Tuesday afternoon of last week. The flock were huddled together under a small tree. Mr. Wood says they were of his finest sheep, and worth at least \$300.

**A CURIOSITY.**—A white crane was killed on this river, last Monday, by H. M. Elsworth, of this place, which measured four feet from the beak to the toes. Its color was of a snowy white, but otherwise had all the appearance of a common crane.—*Midland City Sentinel*.

#### STATE ITEMS.

**THE HARVEST** in this county closed up last week, but very little wheat remaining to be cut. The weather has been ordinary good for gathering the crops which have nearly all been secured.—Wheat will be rather a light crop this year in the County on account of the open winter and insects.—*Ingham Co. News*.

**THE WHEAT CROP.**—From information derived from various parts of the county, we learn that the yield of wheat this year will be very good, though not up to the average. In many portions of the county the insect has destroyed considerable.—*Jackson Citizen*.

**CROPS.**—We learn that the white wheat is almost a total failure in Oakland and Livingston counties. The failure is owing to the insect, which has completely destroyed whole fields, and the farmers in many instances have turned their cattle into the wheat fields. Red wheat, however, looks remarkably well. The same may be said of the wheat in Shiawassee county.—*Corunna American*.

**BIG WOOL CLIPS.**—We are informed that Henry Goodyear and — Watkins, two farmers of Manchester, sold in Manchester their united Wool clips amounting to 8,000 lbs., at 65 cts. per lb. Better than printing, that. From the same source we learn that the wool purchases at Manchester reach the neighborhood of 100,000 lbs., at an average of 65 cts.—*Mich. Argus*.

**LARGE TWINE AND SMALL FLEECE.**—A fleece of wool was sold by a farmer to H. R. Gardner & Co., of the Woollen Factory at this place a few days ago, from which Mr. Gardner took twine measuring sixty feet and four inches in length, and weighing a plump one-fourth pound! The farmer's profit on this twine was over 300 per cent, as it cost him about five cents and brought him about sixteen.—*Jonesville Independent*.

**THE CROPS.**—We learn from a person who has lately travelled through the County, that most of the crops have been safely housed in good order. There are some hay and oats still out, but the last few days of fine weather, will enable these to be saved. The Tobacco crop promises very fine, and treble the quantity that was ever grown here before in one year, will be grown this year.—*Essex (C. W.) Journal*.

**THE HARVEST.**—The wheat harvest in this county is nearly completed. We regret to say that the heavy, and almost constant rains for the past two weeks have seriously injured some fields, but we are glad it is no greater. A very large proportion of the wheat was gathered before the storms set in.—*State News*.



THE harvest in this county is over, and we learn from different sources that it is a good, and in some parts an abundant one. Owing to the late frequent rains, corn, potatoes, &c., are looking first rate, with the promise of an abundant yield.—*Buchanan Union*.

**LARGE EGG.**—Harvey E. Mussey has shown us a hen's egg which measured 8 1-4 inches in circumference the longest way, and 6 1-4 inches the shortest way. It was laid by a Black Spanish hen one year old. Who has a larger one?

**A BIG YIELD.**—Mr. Robert White, of this village, has harvested four acres of wheat which has yielded 40 1-2 bushels per acre.

**HARVEST.**—Our farmers have nearly completed their harvesting, and from what we can gather, we think the yield of wheat will be much better than was anticipated a short time since.—*Romeo Argus*.

**BERRIEN COUNTY.**—In this county, we are blessed with a good, and in some parts, an abundant yield from the wheat crop, and our farmers are busily engaged in gathering it in. They are right in the midst of their labors, with cool and favorable weather. The help is rather scarce, and it is with difficulty that enough can be secured, even at exorbitant prices.

Other crops do not look as favorable, owing to the great drought. Corn has a very good growth of stock, but looks very unfavorable otherwise. Potatoes, especially the early kinds, will amount to nothing, unless we are soon blessed with rain. Rye, barley, oats, &c., look very well considering the dryness of the ground.—*Buchanan Union*.

**WHEAT IN OUR COUNTY.**—We have heard more complaints of weevil's depredations this year than ever before in our county. Some pieces are reported almost destroyed, while others will not yield more than half a crop, according to reports. As a general thing it seems that early sown winter wheat and late sown spring wheat have fared the best, the late sown fall, and early sown spring wheat having suffered most. There also appears to be quite a difference in the amount of damage done to different kinds of wheat. We hear of adjoining fields sown with different kinds of winter wheat at the same time, and where it ripened together, one of which was nearly ruined while the other escaped with little or no injury. The crop does not average as well as usual in our county, from what we can gather in regard to it.—*Sanilac Jeffersonian*.

**HORSE SHOW AT COLDWATER.**—The Coldwater Agricultural and Breeders' Association proposes to have a horse show at Coldwater on Thursday and Friday, August 20 and 21. The grounds of

the Association are only half a mile from the centre of the city of Coldwater, and have been arranged with special reference to the comfort and pleasure of exhibitors and spectators. The Association also announces that it is a distinct purpose to make the occasion one of pleasure and recreation, free from any and all vices which too frequently attach themselves to exhibitions of horses. The President of the Association, J. B. Crippen, formerly President of the State Agricultural Society, informs us that several famous animals are now there, and more are expected, and that some choice sport may safely be anticipated.

#### COUNTY FAIRS.

**JACKSON COUNTY FAIR.**—The 11th annual Fair of the Jackson County Agricultural Society will be held in the city of Jackson, on Sept 30th and Oct. 1st and 2nd, 1863. The programme is varied and the premium list full. W. Buddington, Esq., Secretary.

**CALHOUN COUNTY FAIR.**—The Calhoun County Agricultural Society will be held on September 30th and October 1st and 2nd. The premium list is large and liberal. For particulars address Sam'l S. Lacy, Esq., Marshall.

**KENT COUNTY FAIR.**—The annual Fair of the Kent County Agricultural Society will be held at Grand Rapids October 1st, 2nd, and 3d, 1863. The premium list is now ready for delivery. For further information address the Secretary.

**OTTAWA COUNTY FAIR.**—The Ottawa County Agricultural Society will hold their 8th annual Fair on Wednesday and Thursday, Sept. 23d and 25th, 1863. We are glad to see that Ottawa County is so far advanced in agriculture as to present so full a premium list.

**BERRIEN COUNTY FAIR.**—The Berrien County Agricultural Society will hold its 13th annual Fair at Niles, on Sept. 30th and Oct. 1st and 2nd, 1863. The extreme western county of our State has great advantages for fruit raising, and presents a large premium list. For information address R. W. Landon, Secretary.

**SANILAC COUNTY FAIR.**—The Sanilac County Agricultural Society will hold its annual Fair on the 1st and 2nd days of October. From present indications we doubt not there will be a good display as was ever got up in our county. Let every person in the county, so far as possible, prepare something for exhibition, whether he expects to take a premium or not. We have all the material stock, grain, vegetables and manufactures for a No. 1 Fair. Bring it out.—*Jeffersonian*.

**EATON COUNTY FAIR.**—The annual Fair of the Eaton County Agricultural Society will be held at Charlotte, on Wednesday, Thursday and Friday, Sept. 30th and Oct. 1st and 2d. A list of premiums will be offered, and are being made by the officers for a first rate exhibition. Farmers should be preparing for it by selecting products, and mechanics and ladies by preparing articles for exhibition.

**GENESEE COUNTY FAIR.**—The Genesee County Agricultural Society will hold its annual Fair at Flint, on Wednesday, Thursday and Friday, Sept. 30th and Oct. 1st and 2nd. A full premium list is given, and one of the strongest efforts is to be made to bring out the best stock and agricultural interests in Genesee county.

**OAKLAND COUNTY FAIR.**—The 15th annual Fair of the Oakland County Agricultural Society will be held at Pontiac on Wednesday, Thursday and Friday, October 7th, 8th and 9th. Entries can be made at any time previous to the 1st day of the Fair by applying to the Secretary in Pontiac, or on the Fair ground previous to 10 A. M., Thursday. Fodder for stock will be provided free of charge. Old Oakland will bring out her best stock and agricultural products—and what she cannot show is hardly worth seeing.

#### WAR WITH ENGLAND AND FRANCE.

Within the past thirty days the press throughout the country have been outspoken and vehement in regard to the tortuous policy and bad faith exhibited towards this nation in the hour of trial, by these two great powers; even the government itself, by various manifestations and actions have given much tone to the general portentous sentiments of the people. The Secretary of State it has been rumored, has notified Her Majesty's Ministers that rebel pirates will be destroyed wherever found, even in British waters. A draft is now taking place at various points, by which 300,000 more troops are to be put into the field; this looks mysterious, as the Southern rebels are desponding, and in the most abject position that they have ever been, and are hardly able to make a stand against the Union army outside of Virginia. What are these new troops to be used for at this particular period?

France galls us by an outrageous violation of the Monroe doctrine, in overthrowing the Republic of Mexico and establishing a despotism in North America. England has inflicted a great wrong by the virtual recognition by her courts of law, that the commercial interests of the kingdom are to be justified in fitting out pirates to burn and destroy our commerce, and chain down

abuse and starve American citizens on board their piratical vessels. It is self-evident that the time is fast approaching when the Government must take some decided and energetic action in the matter. The people expect it, and are ready for the commencement of hostilities, and judging from the numerous conversations we hear upon the subject, a majority of them wish for it—as many declare that forbearance, under the insults which have been too long endured, ceases to be a virtue.

If worst comes to worst, this nation can withdraw its merchant marine from the ocean, isolate itself, and with its great Agricultural and manufacturing resources, *fight out its destiny for the government of this Continent!*

The present war has made this people a nation of warriors, and placed the elements of destruction in their hands, and made them efficient and ready in their use. With a million of armed men on land, and our mighty iron monitors and swift coursing vessels on the ocean, we, to the transgressor. We are dependent on no nation on earth for anything that is necessary for the sustenance of a people, or the material wherewith to prosecute an unrelenting and destructive war.

No two powers in Europe can spare and transport 100,000 troops to our shores—even if it was undertaken our gallant seamen would send most of them to a watery resting-place, ere the sacred homes of a free people were within their reach. No European monarch would have attempted interference even now, were it not for the distracted state of the United States. We give below an article which shows how we have been treated by the commercial men of Great Britain, and how by such perfidious double-dealing our merchant marine has been destroyed, or American vessels left to rot in foreign ports, shippers not daring to risk their goods in them. Thus all things are shipped in foreign bottoms.—w. s. b.

From the United States Economist.

#### American Freights in English Bottoms.

When Mr. Lindsay, a Scotch member of the English Parliament, visited this country about three years ago, he read a paper before the members of the Chamber of Commerce and merchants generally, at a meeting called for the purpose in one of the rooms at the Clinton Hall, in Astor Place, on the international laws and customs regulating maritime affairs between the United States and Great Britain; and throughout that paper it was manifest that Mr. Lindsay's main object in his negotiations here was to "get a wedge in" for English vessels in the American coasting trade.—In this he was foiled, and since his return to England, he has been a zealous supporter of the claim of the Southern Confederacy. Mr. Lindsay was a truly representative man. He was directly in-

interested in a large shipping business in England, and fairly enough represented the wishes and wants of British ship-owners. What could not then be procured by negotiation has since been obtained by commercial cunning. The few privateers built and fitted out in England have practically thrown not alone the coasting but all the trans-Atlantic American freights in English bottoms. Our ship-owners have been compelled to sell their ships in European ports, and hardly an ocean vessel leaves the port of New-York at the present day under our national flag. A few days since we saw a schedule of American vessels destroyed by those privateers, numbering not less than 158, and the values are counted by millions. Meantime American freight has gone into Foreign bottoms. How is this to be remedied? Can it longer endure? Surely it is not possible that with our vastly increased navy we cannot drive these privateers from the ocean? But again we are informed that Mr. Lindsay's friends and fellow-laborers are preparing fresh ships for this privateer service.

Out of this state of things clearly comes up these questions:

Is the United States still a nation? and if a nation, is it on friendly commercial terms with England?

Is England on friendly terms with us?

Would such a destruction of French commerce have been possible with the like impunity?

Assuredly our government are supine on this great question, and our merchants are supine in it. A great meeting of our leading merchants and traders should be called to protest in clear, temperate, but determined terms, against the unfriendly course taken by English merchants against our commerce. Such a meeting should be held in each of our large cities, and the joint protest of our commercial community should go forth to the British people in friendly but firm language, saying, this Piracy which you favor and sustain against our commerce must cease—it must cease, or you must pay the cost. There is no nation at war with us in whose interests you can have even a colorable pretence to furnish privateer vessels.

If this question was submitted to a Congress of Maritime Powers, the course which England has permitted her mercantile classes to pursue would not be sustained for one instant, and it is full time that the great cause was brought to trial before the Nations. Let something be done by the American people towards this end at once.

J. D. T. Moore, Esq., Editor of the *Rural New Yorker*, is about to issue a very useful book upon "Sheep Husbandry," this is much needed at the present time, and will be well received.

### Keeping Apples the Year around.

It has often been asserted by those well versed in horticulture, that it was almost impossible to keep late apples in good order from the time of ripening until the next crop is picked. In fact it has been understood that it could not be done— notwithstanding this, our belief is that it can be done with proper care. We have been shown within a few days (Aug. 18) quite a large collection of varieties which have been well kept since the fall of '62. They were as follows:

*Roxbury Russell*—very firm and dry, and would probably keep six months longer.

*Northern Spy*—firm and in good order.

*Pennock*—full fleshed, good color, and in first rate order.

*Westfield Seek-no-further*—wilted somewhat, but sound.

*Green Sweeting or Egg Top*—perfectly firm and waxlike, in splendid condition, and look as if picked only a few days.

We are informed that these apples were grown and kept by L. W. Adams, Esq., one of the most wealthy, practical and successful farmers in Franklin, Oakland County in this State. The friend who gave us the above specimens, also informed us of Mr. Adams method of keeping his apples so long in a good condition. He has a fine cellar with a concrete floor under his house, bins are built in this, commencing 6 inches from the bottom and continued to the first floor above—these bins are 16 inches deep and about 5 feet long, holding from 2 to 3 bbls. each; the apples are carefully picked by hand from the trees and put into baskets lined or quilted, and taken by hand from the baskets and deposited in the bins with as much care as eggs would be, to prevent abrasion or bruising which would cause them to rot—the windows are left open in the fall until freezing weather, when they are closed, and never opened in warm weather, as such a course would hasten decay. In the coldest days in winter a fire is made in a box-store to keep up an even temperature in the cellar, which is ventilated through the entire height of the brick walls to the attic, and finally passing off through the roof. By this treatment Mr. A. has successfully kept the apples in the good condition as presented to us, and we think it one of the best plans yet discovered for keeping apples the year around, and worthy of a trial by our farmers. We are informed that Mr. A. has one of the most beautiful and substantial residences in the western country, and finest farms in Oakland County, having no less than 70 varieties of apples, and also cherries, pears, plums, peaches, and quinces in profusion. His live stock is of the best, having no less than 500 fine woolled sheep and other stock in proportion.

—W. S. B.



**How to Cure Indian Corn for Fodder.**

**EDS. CO. GENT.**—Having received several letters making inquiries in regard to my method of curing corn fodder, I thought, as the inquiries came from readers of your valuable paper, I would give you my method for publication.

In order to have the fodder good, the corn should be cut up while it is yet green—that is, before the leave and stalks begin to dry up. Any time after the corn becomes hard (or glazed) the corn may be cut without injury to the grain.

I make a stanchion for the shock by tying the tops of four hills together, thus X—then the fodder should be set up in the angles as nearly perpendicular as possible. After setting up six or eight hills, the tops should be tied together with a wisp of grass or stalk; this makes a firm beginning for a shock. The shock should contain at least 144 hills, as the larger it is the less proportionately it will be exposed to the weather. Bear in mind that the stalks should be set up as nearly perpendicular as possible. Lastly the shock should be well tied at the top with a band of rye straw.

Corn put up in this manner will not fall down before husking time. I usually husk my corn in from four to six weeks after cutting it up. When the corn is husked, the fodder should be tied with straw in convenient sized bundles for pitching, and it is better to put the stalks from two shocks into one, and tie the tops as before; then, if the weather is dry, it may be hauled at any time and put in stacks convenient to barn. There is no safety in putting it in the mow, however dry it may appear, for the pith in the butt of the stalk is a great absorbent, and as long as the stalks stand on the ground it will retain moisture enough to spoil the stalks if put into a mow, but when they are stacked up so that the butts come to the sun and air the stalks will not spoil.

I make my stacks in the following manner, so that we can always haul in an entire stack at times;—Take a pole, from 4 to 6 inches thick and from 15 to 18 feet long; and set it firmly in the ground; then build the stack around it, laying the tops in against the pole and the butts out, keeping the middle full as in other stacks. At the top I make a cap of a bundle of stalks.

Corn that is sown for fodder should be treated as nearly in the same manner as possible, and you will have good sweet food for your cattle, which they will need no coaxing to eat.

Your motto, in preparing corn fodder for stock, from first to last, must be—“whatever is worth doing at all, is worth doing well.” It is no wonder that cattle should refuse to eat stalks, that have stood where they grew till the winds and

frosts of autumn have bleached and tried out every particle of nutriment—then cut and thrown in heaps, (they do not deserve the name of stacks, where they are completely soaked by the rain; then after being husked, thrown into mows or large stacks, where they heat and mould, and only come before the cattle when half are rotten, and the other half tainted with the fumes of that which is fit only for the manure yard,

There is a very great waste for want of care, in the curing of this crop. This year, especially, owing to the drouth and consequent short crop of hay, cornstalks should be secured with great care, and fed in the most economical way. **I. M. ALLEN, in Country Gent.**

**Articles worth Reading.**

We publish in this No. some very interesting articles from the pens of practical farmers upon the cultivation of Wheat. As they emanate from those who have experimented and been successful in each trial they are entitled to more than a passing notice from every agriculturist. We doubt whether any agricultural journal in the country has three better articles upon the subjects upon they treat. The are as follows:

“Proper Time for Sowing Wheat, and Difference in Soils”: by Wm. R. Schuyler, of Marshall.

“What Quality of Wheat shall we Sow?” by James Clizbee, of Quincy.

“Brining and Liming Seed Wheat—Smut, Chess Cockle, &c.” by C. Close, of Grattan.

The letters on “The State Agricultural College,” by Henry W. Deare, of Hamtramck, are replete with information in regard to this institution, and well worthy of perusal.

What gives us the most pleasure is the fact that these gentlemen are every one farmers of Michigan, and developed these results upon our own home soil. This is one of the surest methods of gaining useful information upon agricultural matters.

**WILL BE AT THE STATE FAIR.**—We understand that the proprietors of “Fickler’s Cattle Powders” which have become so well-known and appreciated among the stock-breeders of Pennsylvania, and the veterinary corps of the United States Army, have made arrangements to supply our principal stock-raisers with this excellent remedy for the diseases of cattle. All should obtain it if possible; and give it that trial which it richly merits at the hands of the farmers of Michigan.

**Erratum** in the State Agricultural College article—Letter 2, page 57, in the fourth line of the second paragraph, it should read \$56,320 instead of “\$13,320.”

For the Michigan Farmer.

**THE STATE AGRICULTURAL COLLEGE.**

BY HENRY W. DEARE.

**Letter No. 2.**

It has been often stated both in public Journals, and in public debates, when discussing the Agricultural College question; that the College, has cost the State in six years time \$150,000 in money, taken out of the State Treasury; this statement has been made in such a way as to lead to the belief that that sum has been taken from the public crib by way of direct taxation, and in what way; a feeling prejudicial to the College has been engendered by making it appear that the outlay from taxation was more than a third greater than it was in reality. It will be seen by the examination of the facts as they are, what it has cost; and what it is likely to cost in future.

Previous to the opening of the College in 1857 the amount expended for the Farm, Buildings, Laboratory, &c., and up to the time of Professor William's appointment, was \$13,320 the proceeds of the Salt Spring Lands, together with a debt, amounting to \$13,472.73 which was incurred, making the total first cost \$69,792.73 therefore from 1855 when the first active steps were taken until 1857 when the College was ready to receive students, it had not as yet taken one cent from the State treasury by direct taxation; while it is true that a large sum had been realized from the public lands which had been devoted for that purpose, and which had been appropriated by the General Government to the State without cost, to be applied by the Legislature for the benefit of Education; this sum had all been expended and a debt incurred making the cost of the grounds and buildings as before stated to be nearly \$70,000.

This was a large sum of money, but upon inquiry it will be found that most Agricultural Colleges have cost as much to put them in operation; still there may be reasonable doubts whether the Agricultural College of Michigan, did not cost too much to establish it? Be that as it may, it is established, it is progressing, it would be the height of folly to remove or discontinue it; every farmer and agriculturist, should protest against any attempt at removal or discontinuance, if at any time such a question should again be broached as it has been recently; let them do what they can to encourage the institution to the utmost, let it remain where it is, and every year will develop more and more its utility to the farming community.

The Legislature of 1857 appropriated \$40,000 for the years '57 and '58, or \$20,000 for each of those years, for its support; the whole of this

amount was expended during the two years for which it was appropriated, and the original debt of \$13,472.73 was allowed to remain unliquidated, this was the time when the students were learning the fundamental "art" of clearing the land for crops, and logging up fields scientifically; a time when it required all the courage and endurance of the student, and the full development of all the moral and intellectual powers of the faculty, to keep the College from going down, and from being branded as a failure, and as an unfortunate experiment; much praise is therefore due to those who so perseveringly brought it through its dark days of early trial to its present stage of promising usefulness, and it is much to be hoped that by the judgment and wisdom of those in whose hands its interests now repose, it may be elevated to that proud pinnacle of fame; to which its true friends desire to see it raised. The Legislature of 1859 appropriated the sum of \$37,500 for the years '59 and '60, the large appropriation of the preceding Legislature, the outstanding debt, and the many obstacles in the way of obtaining immediate and satisfactory results, as some demanded; caused great dissatisfaction at the great outlay which it was seen would be required to be taken from the people every year by taxation if the four first years experience and cost was to be taken as an example; the cry of "humbug" was raised, and it was predicted, and with some apparent show of truth that at such a rate the College would eventually "swamp the State;" but fortunately for the State, the State Treasury, the taxpayer, and the Agriculturist, from that very period the annual outlay necessary to support the College greatly diminished; and is still gradually diminishing. It is confidently hoped that before many more years shall have elapsed, Michigan will have it to boast, that she possesses within her borders and free to the rising generation of Agriculturists; an Agricultural College which will be a self sustaining Institute, entirely independent of annual appropriations made by Legislatures from the State Treasury; a pride and an honor to the State. At the end of two years from the opening of the College, President Williams resigned his position as head of the faculty and retired from the institution.

Whether from the outlay necessary on account of commencing a new and untried enterprise, or from some other cause which has not been explained, there has been a marked and happy difference discernable in the cost of conducting the College during the last four years, when compared with the first two of its existence; the \$37,500 appropriated in '59 was found to be sufficient to carry it through the two successive years, to pay off the debt, and leave a balance in the College

Treasury of \$3500 reducing the running expenses of the College to \$10,263.63 for each of the years '59 and '60, against \$20,000 each, for those of '57 and '58, the Legislature of '61 added \$16,500 to the balance on hand, making \$10,000 to be expended for each of the years '61 and '62; out of that appropriation has been built the new barn, costing nearly \$1600 also various other important improvements were made out of it without embarrassment or incurring debt; the present Legislature has appropriated \$9000 a year for '63 and '64, none of which has been collected as yet; therefore the whole outlay consequent upon establishing the College and keeping it in running order can be summed up as follows:

22 Sections of Salt Spring Lands which cost the State nothing.	\$56,320.00
Legislative Appropriation, for '57 and '58.	20,000.00
do do " '59 and '60.	37,500.00
do do " '61 and '62.	16,500.00
Total cost to the State.	\$150,320.00
Deduct cost of Buildings and first outlay prior to 1857.	69,792.78
Total running expense for the first six years from '57 to '62 inclusive.	80,527.37
Add to this the original debt.	18,472.78
Total cost by direct tax.	\$94,000.00

The average expense per annum for six years since the College was opened to students, is \$13,421.21. The average expense per annum for the last four years ending with 1862, is \$10,131.82.—The average expense for the present and ensuing year, will be less than that of the preceding four years, while the utility and fitness of the College and farm for its mission is gradually advancing.

The main source from whence the College will henceforth look forward to, is the fund which will accrue to the College from the liberal provision made by the General Government toward establishing Agricultural Colleges, and to the policy pursued by the present Legislature in securing the grant to be applied as the Act of Congress requires, to the sole use and benefit of the Agricultural College for its maintenance and support as such, in connection with the mechanic arts, and a military school; thus as soon as sufficient funds can be derived from the investment of the proceeds of the sale of Agricultural College Lands, the College will cease to be an annual supplicant at the door of the State Treasury; a permanent source will be established which ensures stability, the want of which has hitherto been somewhat detrimental to its interests; all institutions of learning require solidity in the matter of endowment before they can command that position to which they are entitled, and that confidence so essential to their prosperity; any institution of learning that is totally dependent upon legislative bounty is liable to be deprived of its necessary support at almost any session, and no free school, academy, or College, should be left

dependent upon legislative enactments from year to year for means of subsistence; for so long as they remain so they are liable to suffer neglect, and perhaps in some instances be entirely discontinued.

The munificent Congressional grant, of 240,000 acres of public land has put the Agricultural College in a fair way of acquiring that stability; efforts were made last winter to remove it from its present location, and by passing over the 240,000 acre of land to the University, connect the Agricultural College therewith; an event which luckily failed of accomplishment, for an experiment which had cost the State \$94,000 in taxes, and \$56,000 in land, which though it cost the State nothing could have been applied elsewhere; was rather too costly an one to be abandoned without a further trial, and a little more perseverance; the cost each year will gradually lessen, until in a few years the College will become self-sustaining.

If the proper course of studies is pursued and the practical application of those studies carried out and exemplified successfully in the field and the garden, as there is every reason to believe they will be we may hope for great results; it would be a sad disappointment if after many years of toil, and patience, and hopefulness; and the outlay of large sums of money drawn from the pocket of the tax payer together with extensive grants, and endowments; it should fail to meet the expectation of its friends, fail to be of any practical utility to the farmer, fail to teach the agricultural student the lessons he has reason to expect when he enters its enclosure; but if on the contrary, it should after a few more years of preparation, moderately realize what its friends so anxiously anticipated; what a triumph it would be for Michigan! She would then rank among the first of States for her Agricultural College, as she does for her truly noble University and Primary School System.

**DROUGHT IN MINNESOTA.**—From all accounts they are having a terrible drought in Minnesota.—A late number of the St. Paul Press says: "It is now nearly six weeks since we have had a fall of rain. Within our memory no such drought has occurred in this State before. The effect on the young grain has, of course, been disastrous.—Spring wheat is everywhere, throughout the State, shriveled and yellowed by the burning sun, and is prematurely heading out a few inches above the desiccated soil. Grass on the prairies is parched to an autumnal hue. Indian corn alone, of all our crops, holds up its head against the drought, and has a vigorous and thrifty look. Winter wheat also looks well. The rivers are lower than we ever know before; even the wells are getting dry."



**HARVESTING CORN.**

The Corn crop is harvested by three modes—by hogging down, by cutting up, and by gathering in the ear alone. The old mode of the Middle States, by topping may be regarded as out of date and general practice, as may also the southern one of pulling the blades.

A vast portion of the corn crop in Indiana, Illinois, Ohio and Kentucky is consumed by turning hogs upon it as soon as the grain begins to barden, or about the middle of September. It keeps the stalks, leaves, shucks, and cobs on the ground together with the rich manure of the hogs. Nothing but the increased fat on them is taken away. This mode has sustained the soil in producing the great crops of alluvial lands as much as their occasional overflowing. As the expense of gathering and feeding out, makes it a matter great importance where labor is scarce and its wages high.

A second mode is by cutting up. This is much practiced on our western uplands, especially where a large number of cattle are raised. Corn fodder is preferred by many to timothy hay, for although not so nutritious, it is loosening while hay is binding. To feed both daily is best. The following analysis of timothy and corn stalks exhibit the difference of their constituents, and show how each make up the deficiencies of the other:

	Timothy Hay.	Corn Stalks.
Silicia, - - - -	31.08	12.85
Lime, - - - -	14.94	2.82
Magnesia, - - -	5.30	0.93
Potash, - - - -	24.25	16.21
Soda, - - - -	- - -	24.69
Chlorine, - - -	4.00	10.95
Sulphuric acid, -	4.46	10.79
Phosphoric acid, -	11.29	15.15

Timothy hay is superior in the first four of these elements, but corn-stalks in the last four. The phosphate of lime, formed by the union of phosphoric acid and lime, constitute the principal part of the bones of animals. Corn-stalks are deficient in lime, but have much of phosphoric acid, and united they form a desirable compound in feeding.

These analysis are given more particularly for the purpose of showing how unfounded are the prejudices of many good farmers against corn fodder who regard it as being deficient in nutritious elements. These prejudices often arise from improper harvesting, by which it is either wasted or moulded.

The time of cutting up is important, and is always designated by the ear. When the shuck on it has turned brown, and is loose and open on the end of it, then is the ONLY proper time to cut up corn. Nature then indicates that the ear is perfectly matured, and that the whole plant is prepared to dry speedily. But many farmers, instead

of looking to the condition of the plant, consult their leisure time, or their desire to put a crop of wheat in the ground, or rely on the weather to dry up the stalks and blades, and so commence *cutting too soon*. The shuck being very tight, the grain cannot dry sufficiently to prevent from moulding, and not unfrequently, especially in dry weather, the blades and stalks also mould. In irregular seasons the corn ripens very irregularly, and then it should not be cut up until most of the latest ripening are in the condition I have mentioned. At that time the most forward stalks will be entirely dried up, but they still make excellent fodder.

The best mode of cutting is with a heavy corn-knife and striking with the point up—by an understroke, as it is called. If the knife is raised and the stroke downward, the weight of the knife tires the muscles of the arm and shoulder, and weakens the wrist. The point of the knife, too, is always entering the ground and is soon dulled. But in the understroke the knife is turned upwards as it passes through the hill, and escapes the ground. But its greatest advantage is in the fact that the knife is swung, but not raised, thus enabling the cutter to use a heavier knife.

Two rows are cut at the same time, and six hills are thrown together, for, when carried to be set up, two of these bunches usually make a sufficient armful.

The best and most expeditious mode of setting up the shocks is the following: A shock should contain twelve to sixteen hills square, according to the size of the corn. The stalks of four hills, in the centre of this number of hills, should be bent and lapped together. The two rows in which these four hills are should be cut down, and set up in each of the four divisions made by the bending of the four centre hills. These stalks should then be tied together with the inner bark of the lind or basswood tree. The rest of the hills may then be cut down and set up around these. They should be set up as straight as they will conveniently stand, and immediately tied with a band of the same bark, or of the grape vine, or of broom corn. In about ten days, when the stalks are seasoned or shrunk, these bands should be tightened; if not, the stalks are liable to slip around each other and fall down in a corkscrew twist, when the fodder is easily and rapidly spoiled. But if properly set up and tied they will remain uninjured during the winter.

The time when corn is cut up is one of comparative leisure, and in no other way can so much feed be saved in the same length of time. But when farmers sell the corn, they gather the ears from the stalks in wagons, usually husking it in the field. It is then cribbed, generally in covered

rail pens, where it is kept until sold. But to retain the sweet and fine flavor of corn for bread and mush, it should be gathered with the husk on, and not husked until used. This method keeps it from the air, and what is much worse than air, the rats and mice, which not only waste much of it, but give an unpleasant flavor to the corn when ground into meal.

An evil of no little magnitude follows this mode of harvesting. In order to get some return from the stalks beside their return to the soil, cattle and horses are turned into the field to eat them. If this were done when the ground is hard and frozen it would not be objectionable, but when once in, they are suffered to have access to the field until spring, when the soil is trampled into clods that cannot be pulverized until frozen in the ensuing winter. The loss is ten-fold greater than the expense of cutting up and hauling out the fodder.—LEWIS BOLLMAN, *Bloomington, Ind.*

#### Sowing Wheat too Early in Fall.

W. J. Johnson in the Country Gentlemen, gives his practical experience of sowing wheat.—Our farmers should read and profit by his advice:

I notice there is much poor wheat around here. True, there are some fields that are good, but I fear there are more bad. I wrote you last fall that I thought mine was ruined by the so-called Hessian fly; it is a total failure, and all owing to too early sowing. For a few years after I came here, I began sowing when my neighbours did, but as I then did the ploughing and sowing myself I was often late in finishing, and I saw the wheat I sowed from the 18th till 25th of September was almost always the best crop. In 1831 I had quite a loss by the same fly, and determined to get all my land ready and not commence sowing until the 20th September, or thereabout. I continued that course for about 20 years, and had almost no failures, with the exception of 1844.—In September 1843, as I intended going to the State Agricultural Show at Rochester, I ploughed early, in order to sow my wheat before I went, and in consequence lost at least half my crop of 80 acres. Some time after the midge commenced to destroy the wheat crops along here, people got almost crazy to have their wheat early sown—some, indeed many, sowing in August, but I never began earlier than the 11th or 12th of September, and had no failure.

I have proof positive that if I had sown about the 10th of last September, I would have had fine looking wheat now. By some imperfection in the drill it missed dropping from one spout the whole length of the field for several times; these rows I had drilled over about the 20th or a little later. Now these rows are as healthy looking wheat as any

man can wish to see, while the other is worthless. If farmers will take heed of what I have written, it will do more good than the loss of 13 acres of wheat will harm me, although I fully expected 500 bushels when I sowed it. It is folly sowing so early. I never knew one day difference in coming in ear, or of ripening, from that sowed on the 12th or 25th of September, if the condition of the land was equal and I have no doubt if farmers generally will make notes of their sowing and the ripening of different fields, they will find what I say correct.

We now have very fine weather. My barley looks very well, grass very good, clover ditto.—I have not been from home to see the wheat but my friends tell me much is bad. Mr. Foster who has as good land for wheat as any in this country says his is an entire failure. I presume he sowed early, as he keeps up his work generally.

I should add that those who sow at the end of September and in October, should sow more seed to the acre than those sowing earlier.

#### WHEAT.

The editor of the Genesee Farmer has been taking a look through the wheat fields of his locality, and we give the following from his observations:

##### GENESEE VS. WESTERN WHEAT.

In the stage from the railroad station to the village of Scottsville were two millers, one from Oakland county, Mich., and the other from Wheatland, N. Y., and the conversation turned on the comparative quality of wheat in the two sections. "There was a time," said the Michigan miller, "when the wheat in this section was the best in world. The flour commanded the highest price in the market; but now Michigan and Ohio are ahead of you." The Wheatland miller was not disposed to acknowledge the claim. Ohio and Michigan wheat was good—but so was that of this section, and it was improving.

##### EARLY SOWN WHEAT INJURED BY THE FLY.

"How is the wheat crop in Michigan?" we asked.

"Well, very good, where it was not sown too early. Our farmers have been in too great a hurry to get the seed in. Some sowed as early as the middle of August, and the fly has injured it a good deal. Where it was sown late it is very good."

It seems to be a fact that the Hessian fly this year has materially injured the early-sown wheat.

##### LESS LAND SOWN TO WHEAT.

Before the advent of the midge, the old system of farming was to take off the crop of wheat every other year. The wheat was seeded with clover, and the clover plowed under when in bloom, and the land sown to wheat again in the fall. But now it is customary to let the land lie in clover at least

two and generally three years. On such land, especially if it has been pastured, a spring crop, such as peas and beans, can be taken off without much injury to the following wheat crop. In some cases corn is planted, but it is not easy to get it off in proper season to sow wheat. We noticed in Mr. McVean's corn field, every few rods a strip of peas. The object is to have a cleared space to put the shocks of corn on. The peas can be harvested and the land sown to wheat, and the corn can then be shocked up on it at once and the rest of the field sown to wheat.

The objection to this plan is that the corn can only be horse-hoed one way. But as the farmers in this section *drill* their corn, and consequently only cultivate one way, the strip of peas is no hindrance.

#### WHAT IS MEANT BY SUMMER FALLOWING.

The usual practice in this section is to break up a clover sod about the 10th of June, with a jointer plow. This plow buries all the grass and clover completely. The land is then harrowed, and and as soon as any weeds appear it is gang-plowed or cultivated. There is no particular rule as to the number of harrowings, provided the land is kept clean. It is not plowed again.

The time of breaking up varies according to circumstances. We saw several farmers still engaged in this labor with three and sometimes four horses, and in one instance with five horses—one team being placed ahead of a three-horse team. We saw one splendid field of wheat on a clover sod that was pastured down close and then plowed the middle of July. After harvest it was cultivated twice before sowing, but was not plowed again.

Here is a field of wheat that was sown on a clover sod turned over immediately before sowing. The land was not plowed at all until the other fields were sown. Let us get out and examine it. We did so, and Mr. McVean remarked that it was far better wheat than he should have expected from such management. It was a very fair crop—say 20 to 25 bushels per acre.

In England this is the common system of putting in wheat, and if our land was *rich enough* and *clean enough* we can see no reason why it would not answer in this country.

There are few better farmers than Mr. Rogers. He raises no spring crops except what he needs for his stock. Sows clover and plaster freely and keeps his land in good heart. He commenced sowing wheat last year on the 11th of September, and finished (on pea land) the 28th. *That sown first was no earlier than that sown last.* All his wheat is excellent. He has a part of a field of wheat after peas and the other part after oats.—The wheat on the pea land is the better crop. He

feeds out of his peas on the farm to sheep; and if the wheat is better after the peas is quite as nutritious, and the manure from them is worth *twice as much*.

**A WATER SOAKED HILL.**  
“Yonder hill, where you see the three oak trees, is the highest land in Monroe county, N. Y., but land is water-soaked.”

Many farmers have yet to learn that *high* land is not necessarily *dry* land. I have known instances of this on the highest portions of a farm near Geneva. And it frequently happens that if this springy upland is drained, the water which saturates the low land is cut off, and few, if any, drains are needed on the low land.

#### HARVESTING SUGAR CANE.

Wm. King, of Raisinville, Mich., says:

Commence harvesting the cane as soon as the seed is in the dough state. It will then granulate readily. If there is great danger of a severe frost cut and shock it as soon as it is in the blossom.—If a frost comes unexpectedly cut without delay and protect it from the rays of the sun. If planted with common corn, cut and shock the cane, then bring the three rows on the right and the three rows on the left and place around the cane. Thus harvested it can remain through one hard freeze provided it is worked up immediately when thawed out. Or, if you please, you can keep it frozen until spring, then work it up. Treat the cane as you would apples, potatoes, or vegetables of any sort. If the leaves are stripped from the cane while standing in the field it must be worked up the same day. The leaves have veins thro' which their fluids pass, and cells in which they are held while digesting, myriads of little caverns thro' whose sides respiration is maintained, a skin to guard them from air, and pores for carrying off perspiration. A leaf is in fact both stomach and lungs, and to remove the leaves before the circulatory system suspends its functions is to commit a mistake which cannot be remedied. By stripping off the leaf, you expose the crude and indigested sap, to the action of the sun and air and it immediately becomes sour. When the frost nips the cane it has a tendency to drive the sap from the blade or shuck into the stalk giving it a bitter nut-gall taste which cannot be removed. If you wish to strip the cane while it is standing in the shock, you commence by seizing some of the stalks with the left hand near the top, then with a single stroke of the corn knife in the right hand cut off all above the left hand, then form two piles of stalks and two of seeds. To strip the cane while it is lying on the ground, seize the cane by the top with the left hand, raise it up, and strike off the leaves by two or three



rapid strokes with a small wooden sword, jerk the cane endways to form another pile, and proceed as before. This being done, bind ten or twelve canes in two places with hay or straw, take it to the mill, or pile it up in the barn and cover with hay or straw until wanted for use. Cane improves rather than deteriorates by standing in the shock for two or three weeks.

Save the leaves for fodder. The seed properly prepared makes as good cakes as buckwheat.—Horses will eat it readily, and thrive better upon this seed than oats. Cows are more sleek and thrifty, and give richer milk than upon any other grain. Hogs will leave corn for it, and after a few days use, and will fatten upon it equally as well. Nothing is better for chickens.

#### The Culture of Barley.

BARLEY wants a good soil—the bad success of many cultivators of late years, or as it is commonly termed, the deterioration of this crop, is owing to a deficiency in this respect. Exhausted or poor land will not answer, and the soil must be in a state of fine pulverization. It should sown very early in the spring provided the ground can be well prepared. Sometimes late autumn plowing with the use of the horse cultivator in the spring, has been found to succeed well on dry soils. The two-rowed barley is generally preferred in this country, standing better, and ripening at a more convenient period, than the six-rowed variety.—Many good farmers sow three bushels per acre, but if planted with a seed drill two bushels would be sufficient; because this instrument will deposit the seed at a uniform depth, and none will be wasted, while harrowing buries a portion too deep, and some too shallow. The right depth is an inch to an inch-and-a-half—if over two inches deep, it is longer coming up, and grows more feebly, according to experiments to determine this point.

Barley should be cut when ripe enough to prevent shrinking, but not overripe, which would cause waste. It may be cut with a cradle or reaper, and placed in cocks like hay. To prevent injury by rain, throw the head towards the middle of the cock, the straw pointing outwards, and of such a size that the middle will always be the highest. In threshing barley, in order to clear the grains of the short beard, it was formerly the common practice to give it a second pounding with a flail; but now the same end is accomplished by passing it a second time thro' the threshing machine.

As we prefer feeding barley to having it manufactured into liquor, we have usually had it ground to feed to horses; two quarts of the ground meal at a feeding, we think it much better than four quarts of oats. The meal also makes an excellent feed for pigs.

Barley is a good crop to follow corn; if the latter has been well enriched with fresh manure, it will be just right for barley—otherwise the ground should have a special application of fine manure well broken and harrowed in. Wheat may follow the barley, if the ground receives a top dressing of fine manure in autumn, before or after the wheat is sown. Or, if the barley is sown rather thinly, it is a good crop to seed down with clover.

#### A Farmer with 60,000 Acres!

What do you think of this farmers of Michigan. By the following it will be seen that farming can be carried on as extensively as any other business, and at as large a profit. Mr. Sullivan's Farm "Broadland" on which he resides contains 22,000 acres, is five miles wide and seven long with 9000 under cultivation, from that he clears a profit of \$80,000; a correspondent of the Chicago Journal says:—

"Michael L. Sullivan, Esq., for many years one of the largest and most devoted farmers of Ohio, whose broad acres stretched along the rich valley of the Scioto, in sight of the dome of the capitol, is now the leading farmer of the northwest.—Some years ago he sold his valuable lands in Franklinton, and re-invested in the cheap, rich, vast and unsettled prairies of Illinois. Nine miles from Homer, on the great Western railroad, and seventeen miles from Tolena, on the Illinois Central, in Champaign county, ten years ago the magnificent farm Mr. Sullivan now cultivated was a dreary waste, and its vicinity a solution. He entered in 1853, more than 20,000 acres, expended \$100,000 in permanent improvements, and now farms rising 9,000 acres. The remainder is under fence, and will in time be farmed. Mr. Sullivan has 40,000 additional acres in the county adjoining Champaign, but unimproved.

A correspondent of the Chicago Journal, who has recently been taking notes of the systematic farming operations of Mr. Sullivan, states that his books show a clear profit last year of \$80,000.—The writer says: Every expense of labor or improvement is daily and carefully entered, and his books are balanced and kept with an accuracy equal to any bank in the State. For instance, every laborer, horse, mule, or ox is named, and a time book is kept of each. The farm is laid off in sections, and every day's work, together with production and improvement, is entered, and profit and loss, debt credit, are fairly exhibited. This is his system, and is inviolable.

One statement will startle the credulity of most men, even farmers—that 1,800 acres of corn were cultivated last year by 1,500 days manual labor. His books show this fact—and more.—

Every day's work of horse, oxen and mules on the farm, and parts of the farm, are accurately and carefully recorded. His blacksmiths, gardeners, dairymen, fruiterers, butchers, &c., each have separate accounts, and he can tell you the cost, to the tenth of a dime, of the raising of corn, or the cost of hay, clover, timothy seed, &c., &c. He expected last year to cut 3,000 tons of hay, but the season was unpropitious, and topping the timothy with machinery, sent to market three thousand bushels timothy seed this winter and spring, selling most of it at \$2.50 per bushel.—He cut 1,000 tons of timothy hay. This morning I received news of the arrival of 3,000 horses and mules belonging to the government for feeding.—This is but one incident of Mr. Sullivan's great plan, and in five years he will have that number of cattle of his own to feed.

His purpose is raising and feeding stock, and the raising last year of 100 bushels of strawberries and 1000 bushels of peaches were but incidents of his great purpose. Riding over the farm I found 1,900 fat cattle, and the young stock were in every direction."

**ANOTHER ILLINOIS FARM.**—The largest farm in Illinois is that of Isaac Funk. Mr. Funk resides near Bloomington, McLean county. The total number of acres occupied and owned by him is 39,000—farm of 27,000 acres, said to be worth \$80 per acre, and three pasture fields containing respectively 8,000, 3,000, and 1,000 acres. His great crop is corn, all of which he consumes at home, and is thus able to market about \$75,000 worth of cattle per year to New York. His stock on hand, horses, mules, hogs, and fat cattle, is said to be worth \$1,000,000.

**A MONSTER CAUGHT.**—On the morning of the 23d instant, Mr. John Savage, who resides two miles South of Capac, in this county, was working in his field, and casting his eye up, caught sight of a creature which he at first thought was a dog. A second glance, however, convinced him that the supposed dog was an animal of the genus *Ursus*. He immediately left his work, and started for the house after a weapon of defence. Taking down two guns, a rifle and a shot gun, he returned to the field of contest. First firing his rifle, it took effect in the shoulder, but did not produce the effect desired. Putting some bullets into the shot gun as he ran, following the bear, and fired again. The second shot took effect in the head, and caused his fall.

Having been dressed, the bear weighed four hundred pounds, and its hide sold for seven dollars shortly after it was taken off. Such an animal has not been seen in this county for years, and the advent of the present one must be a precursor of a fruitful season.—*St. Clair Republican.*

For the Michigan Farmer.

### STUMPS.

FOUR AND A HALF DAYS PULLING STUMPS—STUMP FENCES, &c.

Perhaps you may not be aware that my farm is comparatively new, the most part of which I have cleared during the last ten years; and although I have it under a tolerable good state of cultivation, yet there are the stumps, a pest to all farmers who have them. These stumps have given me the blues for the last five years. But I have concluded not to hoe and cultivate them any longer, as they do not produce very well. I declared war on them last spring and have already cleared forty acres, and I find it is not so much of a job as I expected.

Now for the way I done it. First I took my two boys, one span of horses and a yoke of oxen, a lever shovel and grub hoe and went at it, and in about one week, we cleared twenty acres and burnt them up. I then hired a machine (Hook and Lever) and two men with it and went into another twenty acre lot and pulled 500 stumps in four and one half days, which cost me \$12.50 out, and then in two days more we hauled and put them into a fence fifty rods long, worth say \$25 more or less. So you see this dreeding things is often worse than the doing of them.

I need not tell you readers the advantages to be derived from getting those stumps out of the way, any one who knows enough to take and read the *Farmer* can comprehend that.

Well now that my hand is in I intend to pull fifty acres more the coming year, and I hope all the farmers in Michigan will go at it and see who can pull the most during the next twelve months. Yes, let us make this Michigan the garden of the World.

Enclosed is two dollars, please credit myself with one, and C. W. Ferris one, Hillsdale, Mich.

Hillsdale, July 30th, 1863. D. BEEBE.

We think that the Doctor at this rate will successfully "stump the State" before the next political campaign, and uproot some of the most worthless principles of the soil—thus leaving no chance for other "stump speakers."

**FOOD FOR FATTENING POULTRY.**—The cheapest and most advantageous food to use for fattening every description of poultry is ground oats. These must not be confounded with oat meal, or with ordinary ground oats. The whole of the grain is ground to a fine powder; nothing of any kind is taken from it. When properly ground, one bushel of the meal will more effectually fatten poultry than a bushel and a-half of any other meal. The greatest point in fattening poultry is to feed at day-break.

**TO KEEP BUTTER COOL WITHOUT A CELLAR.**—A correspondent sends the following: "Cover the bottom of a large jar with coarse salt. Put the butter in a bag, place it in the jar and cover it with coarse salt. Place the jar in a north room, and the salt will keep the butter nearly as cool through the summer, as a common cellar."

## HORTICULTURE.

### STRAWBERRIES—CULTIVATION, &c.

We give in this number articles from various sources relative to the cultivation of this most desirable and luxurious fruit. September will finish the season for fall planting, therefore all desirous of procuring plants should set about securing them. The MICHIGAN FARMER PREMIUMS presents one of the best and easiest methods of securing one of the largest and finest varieties in this country.

For the Michigan Farmer.

#### How and when shall I Transplant Strawberries?

To do this on the large scale there is no better time than spring; and if good plants are selected, the ground well and deeply worked, and the planting done early, and with care, a moderate return of fruit may be looked for the same season.

There are two classes of this fruit in cultivation, each requiring a distinct system of management.

The Foreign Varieties, of which Triomphe de Gand may be taken as an illustration, are inclined to produce several crowns from each root; each of which may be expected to produce a distinct cluster of fruit; but, in order to secure this result, the plant must have good culture and an abundance of space, as otherwise the plant must become weakened, and the fruit probably abortive. It is also found indispensable to the best results, that the strength of the plant shall be husbanded by destroying the runners as they appear.

In consequence of these peculiarities the foreign sorts are only cultivated successfully in hills, by planting them in rows about three feet apart, and the plants from fifteen to eighteen inches apart in the rows.

The Native Varieties, of which Wilson's Albany may stand as a type, seldom produce more than a single crown to each plant; and, although much finer fruit may be produced by growing them in hills, the most profitable results are secured by allowing the plants to spread, and cover one half or two thirds of the entire surface.

There is, however, a large class of growers who only desire a plantation of sufficient extent to suffice for home wants; and, moreover, it is not unfrequently the case that such persons have, during the spring, secured a few plants of a new or scarce variety, from which they are anxious, as early as possible, to secure a plantation adequate to their wants.

For the benefit of persons so situated, we will describe a process to which we have resorted with a very successful result. Provide a quantity of

small flower pots, (such as are usually called Thump pots,) and, as soon as the runners are ready to take root, sink these pots in the earth about the plants, so that each may receive a young plant, which will soon be well rooted, and may be severed from the parent plant, and turned out of the pot into the earth where it is desired to remain, without having experienced any apparent check from the removal.

Should the thump pots not be accessible, nearly or quite as desirable a result may be secured by removing the young plants, as soon well rooted, with a ball of earth attached to the roots; which is easily and rapidly effected by means of an ordinary gardener's trowel.

It is well understood that the chief difficulty in transplanting, in August, in the usual way, grows out of the liability to excessive heat and drought soon after transplanting; an account of which it often becomes necessary to resort to shading and watering, until the plants become established. By the proposed plan, however, the necessity for this is entirely obviated, provided the young plants are allowed to acquire a good hold upon the soil, before being severed from the parent.

The reason why it is necessary to plant as early as August, in the usual way, is that the plants must have time to become established, to enable them to withstand the winter. By the process above proposed, however, this difficulty is mainly obviated, and the process of removal may be continued, as plants become rooted, up to the middle or last of September with good success.

Two years since, the writer commenced, with a dozen plants of Triomphe d' Gand; and by this process he secured, during August and September, a plantation of two hundred and fifty plants, beside several hundreds spared to others. The plantation came through the subsequent winter perfectly, and produced a fine crop of fruit the next season. A plantation of Wilson's Albany was also made at the same time, with a similar result.

Plymouth, August, 1863; T. T. LYON.

#### Strawberry Beds.

The Illinois Farmer in an article upon this subject says: When the fruit season is over, the first thing to be done is to spade up alternate strips and to weed out the plants. A good way to do this is to take a board, 14 to 16 inches wide, lay it on the edge of the bed, covering the first strip of plants that are to be retained; at the edge of this, turn under two widths of the spade, cutting close to the edge of the board with the spade, so as to make the lines straight and workmanlike.—When this is complete, lay the board on the next



strip of plants, and in this way, until the whole is completed. In the next place take a steel rake and thoroughly rake smooth the spaded strips and take all the weeds out from among the old plants. This is all the culture we give our beds up to this time. We never disturb them after the spring opens, until the fruit is ripe, when it is gathered. The weeding of the beds we think injurious to the growing plant. It is seldom that we need to dress over the beds, as the plants take such possession of the soil that the weeds have little chance to make a lodgment. White clover, sorrel, and blue grass are the worst to contend with. After the ground is frozen in the winter, a light covering of litter with some well rotted manure, completes the season's work. Thus, reader, you have our secret of strawberry culture, by which we always have an abundant supply of this delicious and health-giving fruit.

The whole process is simple and easy to be performed, and will not make the fruit on the vines cost over fifty cents a bushel. The picking is worth two or three cents a quart additional.—This makes the total cost less than six cents a quart, leaving a very fair profit at present prices to such of the junior members of the farmer's family who have the enterprise and good taste to attend to it.

We are surprised as year after year rolls on, that farmers tables are not better supplied with this fruit in its season. The mystery that was supposed to surround the culture of the strawberry is now dispelled, and the process so simple that failure is out of the question. Of course the quantity and quality will vary according to the season, but of failure there need be no fear. It has not been our aim to grow this fruit for market, but we generally sell enough to pay the expense of the whole crop. The best time to set out new beds is in May, but it can be done during a wet time in July and August. But these new beds must be well protected by a covering of straw, or other coarse litter.

#### Strawberry Culture.

As we have offered splendid strawberry premiums it is also our duty to give our readers and those who secure the same, what we judge to be the best practical method of cultivation. We give the system of the Rev. Mr. Knox, the celebrated strawberry culturist of Pittsburgh, Penn., in relation to the culture of his favorite berry. He has probably been the most successful culturist in this country, having had, we believe, from sixty to one hundred acres under growth at one time.

He says:

#### SOIL.

The soil I prefer, is a clay or limestone subsoil;

a light clay—this is the soil I have, and the finest strawberries I have seen were from soils of this character. In its preparation I change according to the variety I plant, and the time I expect the plantation to last. Some varieties have to be frequently removed. I do not stir the soil too deeply. Some of my best strawberries had only plowing from eight to ten inches in depth. If I want a bed to last long, I stir the soil from fifteen to twenty inches, and if necessary drain it. The soil is stirred with a common plow for two horses, and then a Mapes subsoil plow drawn by two yokes of oxen.

#### PLANTING.

In planting I make rows two-and-a-half feet apart, and set the plants ten inches apart in the rows. I have made some changes which I think valuable. If I plant strawberries alone I plant three rows eighteen feet apart, the three rows take three feet of ground; I then have a hill between the paths, two feet, to give room to cultivate and gather. I planted four acres of Concord Grapes in rows eight feet apart, between the rows of grapes, put three rows of strawberries; this left two-and-a-half feet between the grapes and strawberries. I cultivate these strawberries for plants so as to keep them distinct.

My first crop from ground is plants for sale in summer, fall and next spring. The second season gives a good crop of berries, and a few grapes. The third year will bring a good crop of grapes, and the strawberries will pay for all till the grapes bear.

#### CULTIVATION.

I keep down the runners to get the fruit in perfection, of the best quality and largest size. I pinch off the runners to throw all the growth into the fruit stems; the runners take too much from the plant and injure the fruit next season.

I never stir the soil after May, and the fibrous roots should not be broken; use the hoe sparingly as possible, only to chop up the weeds; they are mostly cultivated by hand.

I attach great importance to mulch, and think if mulch was tried more, growers would be more successful. I mulch with straw; prefer rye straw threshed with the flail. In the fall it protects the plants; prevents them being thrown out by the frost. In spring the straw is removed from the crown of the plant and left off till fall. This keeps the fruit clean and it brings a good price. It keeps the ground moist and makes the plants bear much longer; the whole ground is covered. I think oat straw too light and short. If it is put on before rain there is no trouble with the wind blowing it.

[This gentleman's opinion if great worth, as it based upon extensive practical experience.]

**Renewing Strawberry Beds.**

It is sometimes made an objection to certain kinds of strawberries, that after producing a few crops they die out, and leave the cultivator without a crop for the ensuing year.

It is worth remembering, however, that all strawberries bear better, and produce fruit of better quality the second year of planting out than at any other period of their lives, and it is probably on the whole better to base one's calculation on renewing beds every second year.

This is more particularly desirable where strawberries are grown in hills—a plan which is now followed by most who seek the best results, and which plan is very liable to be attended by the well known enervating effects of overbearing.

Many market growers of the strawberry, whose pecuniary interests generally lead them to the most profitable way of raising fruit, renew their beds every third year. They make a plantation every season, which, after bearing two crops, is destroyed. A new one planted and an old one abandoned, thus keeps up the annual succession. These are not planted exactly in hills, but in plow rows—the plants, perhaps, twelve inches apart, and the rows two or two and a half feet. These rows are usually hoe-harrowed continuously through the early part of the season, till the fruit is ripening, when the whole bed is left to be undisturbed possession of the runners and the fruit. In September, after the ground has been thoroughly prepared, the runners are taken off and set in pans of water, from which they are transferred to their assigned positions in the new rows. All the runners not wanted are then cut off with a hoe or harrow, the plants left to bear one more good crop next season, which is usually the best, after which they are destroyed, and the ground planted again with young plants, or left for the purpose of using for some other crop, accordingly as it may suit the view or convenience of the planter in regard to rotative cropping.

This is a general outline of the practice of some of the best growers we know. They each vary in some particular, but the main point is in the early renewal of the plant, as we have stated.

The questionable point would be this: Granting that a third year's crop from the same plants would not be as good as the second year's had been, would the difference be so great as warrant the increased labor of making new beds? We believe it would. Moreover the labor is very likely to be overrated; for it costs but little more to make a new plantation than it does to clean out and fix up an old one.

There are instances, no doubt, where it can be proved best to let a bed remain more than two fruiting seasons, and as long as it will bear well.

In the ever varying circumstances under which horticultural rules are to be practised, these anomalies are continually occurring, but we have no doubt, as a general thing, it will be found most profitable and satisfactory to make a new plantation every second or third year.—*Gardeners' Monthly.*

**Seedling Fruits.**

*The best Method to assist them in Early Bearing.* Some valuable and interesting additions have of late years been made to the family of Pomona; and, altho' not quite so prolific as her sister Flora, or attracting numerically so large a class of admirers and manipulators in the art, nevertheless some of her productions are of a higher standard, and of more real intrinsic worth. These will doubtless be rising into fame in a further generation, when the productions of her gay sister have been either superseded by her offsprings, or fail by change of fashion or circumstances to interest and gratify. Orchard-houses have already done much by way of promoting and extending fruit-cultivation. By them also a new field and wider scope are opened up for amateurs, who may, in addition to the cultivation of choice well-known sorts, raise seedlings and prove their value in a shorter space of time than when planted in the open air. Those who are not in the possession of these structures will find early fruit bearing promoted by budding on and near the extreme points of the branches of well established trees of the same genera, and their value tested in a much smaller space than could otherwise have been done by growing on their own roots.

The plan I adopt is to get them budded the first year, when the plants are in the seed-leaf; they are potted singly into small pots and grown in heat until they stop their growth. At this stage they are removed to a cooler place for about a month, which gives them a sort of rest, and enables them to be easier excited into growth. When again put into heat, this, with the assistance of a good sized shift into rich loamy soil, and a brisk heat soon starts them into a second growth.

As soon as the buds rise freely from the wood, they are taken off and inserted on healthy and strong-growing shoots of the current year; this operation has commonly been performed about the end of August. I have had by the above method buds inserted upon the trees the seed was taken from in less than ten months. Although I have had by the above method buds inserted upon the trees, from the beginning when the seed was taken from in less than ten months. Altho' I have not yet proven any of my own productions to be a decided acquisition, I still hope that the interest is the same. I may, however, state that I have

had several quite as good of the parent sorts they were raised from, consisting of Grapes, Peaches, Apricots and Plums; in the latter sort I have some seedlings growing of each year's raising since 1855; these are budded mostly on the Green Gage which I find answers the purpose better than many other sorts. It gives a chance also of fruit from other sorts when it fails in its own. The year and number are attached to each bud when inserted. In referring to my note-book I find there were ten sorts flowered last spring; but out of these only some or three or four set their fruit and these were imperfect specimens to judge from. The show of fruit-buds is good for this season, and hope to have a greater variety in fruit.—*Florist and Pomologist.*

#### Planting Orchards.

It is certainly gratifying to see the increased attention which is being given to the cultivation of apples. Farmers, who a few years ago regarded the raising of this fruit as an almost impossible thing, and the labor spent upon it as just so much thrown away, are beginning to see their error, and are going into the planting of orchards with a great deal of spirit and every prospect of success. They will find that it is a want of due care and management of orchards, not luck, the climate, soil, anything else, which has hitherto been the bugbear. Apples are now produced in Eastern Pennsylvania as abundantly in quantity and equal in size and quality as in any part of the world.

It is not yet too late to set out orchards, or fruit trees of any kind. Only see that the trees when purchased are in the best condition, and that they are "lifted" with the greatest care.—The failure of trees in growing, is more to be attributed to the tree-murderers in the nurseries than to any other cause. Frequently when trees are purchased at a distance by nurserymen the roots are left exposed to the sun or drying winds, and are then two, three or more days in being transported before they are "heeled in" or transplanted, and hence are either stunted in their growth or die outright when set out upon the premises.

In England, where, however, their fruits can not begin to approach ours, they are now using lime extensively in transplanting trees of all kinds. A small quantity of lime—say at the rate of four bushels to the acre—is put in each hole, well mixed with the soil, before setting the tree. It is claimed for it, by what process of reasoning we know not, that the lime has a tendency to push forward the tree at its early growth when it requires just such a stimulating power.

One thing relative to well-cultivated apple or-

chards, may now be held without fear of successful contradiction, to wit: that they are fully as profitable as any crop raised upon the farm, and just as certain in the yield. There are seasons when several crops of the farm will be very poor; sometimes there will be only one, or perhaps all will be good; the same risk must be run with the apple crop, as the same general rules govern all.—*Germantown Telegraph.*

We publish the above at the present time in order to remind our readers that the fall of the year is approaching, and the suggestions of the *Telegraph* may assist them in selecting desirable trees to be set out when the proper season arrives. The farmer who has not already good apple orchards, should make his arrangements now for the right sort of trees, and have his ground selected and thoroughly prepared before the approach of winter.

#### The Apple Borer.

August, towards its last days, brings the grub into active existence, and as it is highly important that every farmer who has Apple trees should be upon the lookout for these destroyers, we give the following description of the operations of the Beetle and its depredations from a correspondence in Harper's Monthly:

The mother insect deposits her eggs on the bark during the months of June and July—here and there, only one at a time, very near the roots. It is hatched about the latter part of August, and commences boring directly under the bark, devouring only the sap wood at first. As it gains strength it works deeper, and at last enters the solid wood. Its journey is now upward; and if the winter is mild it will continue boring its way, having stopped up the orifice behind with sawdust—the product of its own industry. Thus it works until the sap begins to ascend, when it gnaws out towards the bark again, and cutting as thin an oval as it dare do between daylight and security, it weaves a loose covering of silk, and transforms into a brown chrysalis, with black lines and dots on it in some specimens; in others they are wanting. The chrysalis is entirely white from some weeks, and always has its head turned towards the thin covering of the bark. The grub is a most singular looking creature; very broad across the third segment, which causes it to bore a wider channel and flatter than its confederates. This segment is covered with hard, brown warts or elevations, with two deep lines intersecting it. Before the last month these lines and elevations are red but turn almost black when the grub is about transforming; otherwise it is soft and fleshy, and of a dull yellow color. The jaws are strong and highly polished. The head is almost sunk under the second segment. The teeth and other parts



of the mouth are hidden, unless you pinch and tease the grub, and make it protrude them. The antennae—two yellow, bead-like protuberances—are found on the outside of the outer portion of the head.

These beetles are hard to work all over the country, not confining themselves to the apple tree, but the peach and the cherry are equally liked. Twenty-two runs of this beetle have been counted in one apple tree, at different heights, before the tree was five years old, and the owner was quite at a loss, "what made it so sickly;" it cost enough to be good," he said to me.

"Shake it hard," said I. Snap went the tree, "Now I will take out some fine specimens of beetles, and the sooner you use the rest for firewood the better."

The owner looked astonished. But there was another and another, all going the same way.

"What can be done?"

"The grub of the beetle," I replied, "acts fairly by you. It leaves a pile of fresh saw dust just where it has entered; and that saw dust will continue increasing for five or six days. If you feel that you have not touched it, cut into the bark until you reach it."

A quick and observing eye should be the portion of every one who owns an orchard. It can be rendered very profitable to cultivate an observing faculty.

#### To increase the Size of Fruit.

Professor Dubrieul points out ten ways by which the size of fruit may be increased; and as fruit-growers are discovering that fine specimens bring a higher price in city markets, these modes are worthy of attention. We condense his rules:

1. By dwarfing.
2. Thinning the branches by pruning.
3. By keeping the bearing shoots short and near to the centre of the tree, small specimens growing on the tips of shoots.
4. Thinning the fruit.
5. Shortening in.
6. Support the fruit on its foot-stalk.
7. Diminishing evaporation from the surface.
8. Moistening the surface with copperas.
9. Ringing.
10. Inserting spurs of old trees on vigorous young ones.

**A LARGE PEACH ORCHARD.**—David Henning, Esq., has set out 2,000 peach trees this season, on the farm lately purchased of Rev. Mr. Richards.—*Ann Arbor News.*

There will be no agricultural State Fair in Wisconsin for the year 1863. Such is the decision of the Executive Committee.

For the Michigan Farmer.

#### AMERICAN POMOLOGICAL SOCIETY.

In my last the types make work with a few names of Pears, and, as readers are liable to be misled thereby, allow me to ask the privilege of correction. "Urochlan" should be Uwehlan. (pronounced Yuehlan) "Doyenne du Cornice," should be Doyenne du Comice. "Shelden," should be Sheldon. "Miriam," should be Merlam.

The afternoon of the second day was devoted to the discussion of Cherries.

Belle d'Orleans was recommended, by Reid, of N. J., and the the President, as a very desirable early cherry.

Houghton, of Pa., remarked that "many cultivators have been very much disappointed in the cultivation of the so called dwarf cherries. Although they grow very rapidly and largely, they do not fruit much better than on common stocks. In the region of Philadelphia, some think they grow better on dwarf stocks."

Black Heart was commended for its hardiness and also for free bearing.

Downer's Late was characterized by the President as the best late cherry they have in Massachusetts.

Red Jacket, of Pa., of Professor Kirtland's Seedlings, was also recommended as a similar fruit, and the tree as healthy as a Mazzard—rarely totting on the tree.

Coe's Transparent was recommended by Hooker, Reid and Thomas, as one of the best American Seedlings, the quality equal to anything, and the fruit most beautiful.

Kentish, or Early Richmond, was proposed by Barry and the President as early, productive and free from diseases.

Reine Hortense was named by Thomas and Elliott, as one of our finest cherries—hardy and uniformly productive.

Governor Wood was proposed by Carpenter, as very prolific and hardy. Elliott, Hooker and others had found it very much inclined to rot. Hooker had found it, on old trees, inclined to overbear, and the fruit to become small and insipid.

Yellow Spanish, or old Bigarreau, was found to be excellent, productive, and so firm as to bear transportation to long distances. Reid had found it reliable to crack in wet weather.—The President remarked that this was the case with Bigarreau cherries generally.

Kennicott was described by Elliott, as a large cherry, ten days later than Black Tartarian, high flavored, and the tree a good bearer.

Black Hawks was also described by Elliott, as very good, about like Black Eagle, though a better bearer. Not a beautiful grower, and the tree very difficult to propagate.

Dacotah—originating only two years since—was described by Elliott, as a black cherry, with the habit of Black Tartarian, but ripening ten days later. Tree hardy.

Rockport was characterized, by the President, as one of the best cherries he possesses.

Elkhorn was commended, by Bergen of N. Y., as resisting the disease or insect that affects other cherries. It was generally thought to be desirable, if at all, on account of its lateness.

Monstreuse de Mezel was represented as large and fine, but the tree ugly and coarse. Some growers suspected it might be identical with Great Bigarreau. Barry had found it a remarkable bearer, and the fruit worth more than double the price of other cherries in the market.

Pontiac was described by Elliott, as a large black cherry, having no superior. In season about the time of the Black Tartarian.

Delicata was described by the President, as a hardy tree, and charming fruit, but not large enough for market.

Powhattan was said by Elliott, to have the habit of the Black Mazzard. The fruit one half larger, uniformly smooth, regular and even. Valuable for the market.

The Society here closed the discussion of Cherries and proceeded to the consideration of Peaches.

Nivette was proposed, by Parsons of N. Y., as a very good bearer and one of the best for a private garden. It has the peculiarity of parting freely with its skin, when fully ripe.

Royal George was spoken of only to recommend it as one of the best for in-door culture.

Bellegarde was recommended as excellent for all purposes. Early Tillotson had been found, by Barry, to be unsuccessful, out of doors, on account of mildew.

Stump the World, although not much disseminated, has been found to be a capital peach. The writer has found it valuable in this State.

Early Ann, and Fay's Early Ann, were both discussed, but were thought to be too small for market purposes.

Hale's Early was recommended as one of our very best early peaches. It originated, in Ohio, with a German, who claimed to have brought the seed from Germany. It ripens a week before Early Tillotson, and is almost as large as the Early York.

Harker's Seedling, was spoken of as ripe the middle of September, a freestone, generally a little red, a good bearer and of first rate quality.

Buquehannah, a new peach, which took the prize as the best at the Philadelphia Society a few years ago, was inquired for by Hooker of N. Y., but no response was elicited.

New Jersey market varieties. Parsons, of N. Y., requested a list of the principal peaches planted in N. J., for market; to which Parry, of N. J., responded by naming Serrate Early York, Crawford's Early and Late, Harker's Seedling Oldmixon, Stump the World, Honest John, Kenrick's Health and Smock's Free.

The discussion of Peaches closed here, when the cultivation of *Plums* was called up, by Hooker, of N. Y., who inquired—"Has any gentleman cultivated plums, and made any experiments with reference to making prunes, such as are sold in our shops? Dried plums are very common, but it seems to me that this article which we import so largely could be made at home as well as abroad."

Mr. Bergen, of N. J., replied. "It may have been very desirable this year, but as a general thing there is not a large crop, and they are consumed in their better state as plums."

The discussion of Native Grapes was next taken up, and, as it is desirable to give a rather full report, we defer it till next month.

Plymouth, August, 1863. T. T. Lox.

### Summer Pruning.

Most horticulturists agree in recommending from the 20th of July to the 20th of August, as the most suitable time for summer pruning fruit, shade and ornamental trees. Pruning fruit trees at this time, if rightly done, checks their growth, and has a tendency to produce fruit buds the following year, and it thickens the foliage of ornamental and shade trees.

Geo. Wingate Chase publishes in the Massachusetts *Plowman* an elaborate article on the subject of summer pruning, and as its suggestions agree with our experience, we copy as much as our space will permit:

The principal objects in view in pruning are no more than two—1st, to regulate the growth of the tree or vine; 2d, to induce fruitfulness.

#### PRUNING TO REGULATE GROWTH.

Air and light are essentially necessary to the healthy growth and symmetrical development of any tree or vine, and therefore the first care should be to avoid crowding, either of the trees or vines, or of the branches on each particular tree or vine. Be sure, then, in the first place, to allow your trees and vines space enough to stand in, so that air and light may have full play all around them.

Growth is always most active at the newly formed points, as the young buds are the most excitable. To counteract this tendency in young trees, we cut away one-third, or even more, of the length of the stem—an operation known as "heading down." This removes the most active growing parts, and the sap, being obliged to find new channels, has its whole force directed to the buds before dormant.

This never failing result reveals to us a simple and general rule to guide us in pruning trees and vines to secure symmetry of form. If we wish to check a too vigorous growth of a particular branch, or of a particular branches, prune off the ends—more or less, according to the degree of check desired. If we

wish to encourage a more vigorous growth in a branch, or in branches disposed to be feeble, prune back the most vigorous. By removing the growing points of branches disposed to appropriate more than their share of the nutriment, their growth is at once checked, and the sap readily takes its course to the growing points of branches remaining entire. Whether, then, we wish to encourage growth in the feeble branches, or to check growth in the too vigorous branches, the remedy is the same—*prune off the growing points of the unduly vigorous branches.*

Knowing this much of the practical philosophy of pruning, we very readily conclude as to which is the best season of the year for pruning. *It is while the tree or vine is growing.* That season is now upon us. Let us then go into our garden or orchard, of peach, pear, and plum trees, or among our grape vines, and whenever we see branches making an undue, (or rather *disproportionate*) growth, cut or *pinch* off the ends. If we do this now, simply pinching off the shoots will be sufficient, and it is much more rational than to allow the most vigorous branches to continue to make wood, not wanted throughout the entire season, and then prune it away. If we prune only in the fall, or early spring, we not only lose all the nutriment expended in the growth of the wood pruned away, but we also lose all the time expended on the superfluous growth—which in most cases is an entire season.

#### PRUNING TO INDUCE FRUITFULNESS.

It is a fact that trees on which summer pinching has been regularly practiced, will bear fruit several years sooner than they otherwise would have done. Pinching to induce fruitfulness is usually confined to the secondary or lateral branches, and should be performed while the branches are small. A side shoot (not needed for a branch,) if pinched in June, when three or four inches long, will almost certainly become a fruit spur or branch.

As we pass among our trees, with these two objects in view—to secure symmetry of form and to induce fruitfulness—we shall be found here and there pinching an outer branch to check its too vigorous growth, and give the feebler ones a chance; and here and there pinching the ends of the short side branches (especially those in the exterior of the tree,) to throw them into fruit spurs. If a shoot is growing in a position where none are wanted, we cut it clean out with a sharp knife, and the same with all superfluous shoots or branches. The more vigorous a branch, the more severely we pinch it; and the weaker a branch, the less we interfere with it. In other words, *prune the most vigorous branches very short, and prune the weak branches long.* The sap is attracted by the leaves. The more buds we leave, then, the greater the number of leaves, the more sap attracted, and the more vigorous the growth.

Always remember to *pinch or prune vigorous branches as early in the season as possible, and feeble branches as late as possible*; and if you wish to obtain wood branches, *prune short*, while if you wish to obtain fruit branches *prune long*. The most slender or feeble shoots are the most disposed to fruit, while vigorous shoots produce few fruit buds.

### Destruction of Insect Pests.

The Country Gentleman, gives the following advice in regard to the destruction of the various insects named.

#### APHIDES.

Our readers are aware that we place but little reliance on any remedy for destroying insects, short of killing them at once. Wholesale destruction is desirable where it can be performed, and it is more particularly applicable to the removal of aphides from the fruit trees and ornamental shrubbery. In some cases very strong tobacco water has answered the purpose; in others a solution of whale oil soap has proved successful—Probably a mixture of the two would accomplish the object in any case. As whale oil soap is not always at hand, we have found common soap suds generally prove efficient. One year several thousand young fruit trees were thickly infested with aphides; we directed all the soap suds on washing days to be carefully saved, and as little diluted as practicable, so as to give

it its full strength. It was carried along in pails and held under the stems and branches, which were bent over and immersed in it, slightly shaking them so that the insects might become well coated. It killed them in every instance where this care was taken; but where the work was superficially performed, that is, by merely dipping them in and out again in a moment, a considerable portion escaped. Two or three days diligent work entirely removed the pest from the plantation.

But there are instances where the branches cannot be bent over nor immersed in the suds; a syringe must therefore be employed requiring a large amount of liquid, but proving equally efficient if well used. It is not necessary that a costly instrument be procured for this purpose—a garden engine or hydropult cannot be applied to every corner and hidden leaf so well as a small instrument held in the hand. One may be made by a common tinman, costing altogether not more than one dollar. The end should be perforated with a number of small holes, so as to dash a smart shower on the under side of the leaves, or to any part of the plant. Wherever this mode has failed, it has been owing to the weakness of the solution, or to a want of efficient application.

BARK LOUSE.

This pest has diminished in many parts of the country, but in others still continues formidable. There is nothing that more effectually stunts a tree and destroys its vigor. In answer to frequent inquiries received for a remedy we copy the following from a cotemporary which we have no doubt is effectual:

Boil tobacco in strong lye till it is reduced to an impalpable pulp, which it will be in a short time, and mix with it soft soap, (which has been made cold; not the jelly like soft soap,) to make the mass about the consistence of thin paint, the object being to obtain a preparation that will not be entirely washed from the tree by the first rains which occur, as lye, tobacco water, and most other washes are sure to be. The fibres of the tobacco diffused through this preparation, cause a portion of its strength to remain wherever it is applied longer than any application which is wholly soluble in rainwater can be. First trim the trees well, so that every twig can be reached with a paint brush, and apply this preparation, before the buds have much swelled in the spring, to every part of the tree. This will effectually remove the scales.

#### PROTECTION FROM THE CUT WORM.

We have recently seen a mode for preventing the cut worm from destroying young recently set cabbage plants, consisting of wrapping a piece of stiff paper around the stem when the plant is set out, so as to extend a little above and an inch or two below the surface. We have adopted this mode more than twenty years, although it is now recommended as new, and we can vouch for its entire efficiency. Thick writing paper appears to answer the purpose best, and old letters may be torn up and employed. Stiff wrapping paper and even burdock leaves have answered about as well, the object being merely to place a protection about the stem where the cut worm usually assaults it.

#### THE GRAPEVINE BEETLE AND ROSE BUG.

A correspondent of the same paper writes for information about certain insects, and is answered by Dr. Fitch, the well known naturalist of New York State:

Enclosed I send you two different species of bugs that made their appearance in this county this spring for the first time.

The green bug made its appearance first, and attacked our grapevine in the eye or bud when they first began to swell, and would eat out the whole bud and destroy it, and it was with great difficulty that we saved a portion of our grapes by battling and destroying them.

When the portion that we saved from the ravages of the green bug began to bloom, the larger or the brown bug made its appearance by thousands, and attacked them in the blossoms and when out of blossom still destroying the young grape, when almost half grown. My object in forwarding the bugs to you is to know from you or your state entomologist, whether they are common in your section of country; if so, do they destroy the grape there as here, (they are new to us) If they increase here, we may give up raising grapes. You will please give us some light upon the subject if you know anything about them or their origin.

We have another species of bug here similar to the seventeen year locust, but only about one-third the size, with a long sharp horn on the back of the head or neck about one-quarter of an inch in length. If they sting any limb on a young apple tree to the size of two inches and under, all the limb above the puncture will be dead in twenty-four hours. I have never seen either the bug or their manner of destruction of fruit trees described in any writings or print that I have ever read, only once, about two years ago, I read a piece, in the American Farmer, of Baltimore, written by a gentleman in East Tennessee, about something destroying his fruit trees, and he did not know whether it was an insect or the fire blight, but I was satisfied when I read the article that it was caused by this same insect.

As soon as I can get one of them I will send you one to examine it.

Cumberland, Md., July 7, 1868.

P. DONAHOE.

The "green bug" spoken of by Mr. Donahoe, is the GRAPEVINE FLEA-BEETLE, *Haltica chalybea* of Illiger, of which in different parts of New York State there has been great complaint the past and present year, it eating out and destroying the young buds of the grape in the same manner here as in Maryland.

The larger buff yellow beetle is the notorious ROSE-BUG, *Macrodactylus subspinosus* of Fabricius, the *M. angustatus* of Beauvois and of Dr. Le Conte, who erroneously, as I think, supposes the *subspinosus* to be another species, the *barbatus* of my manuscripts. In Saratoga county, N. Y., this Rose-bug has this year appeared in immense numbers, destroying the young plants of Indian corn in the fields, and, as I am informed, completely stripping the leaves and fruit from the grapevines in some of the gardens at Saratoga Springs. I have given a full account of this insect in the Transactions of our State Ag. Society, 1855, pp. 477.

I do not recognize the insect which is last alluded to in Mr. D.'s letter, from the statements there made, and shall be very glad to receive specimens of it, whereby, I doubt not, I shall be able to inform him what it is.

A. FITCH.

#### New Mode of Cultivating Asparagus.

The London Gardeners' Chronicle gives an account of a new mode of cultivating asparagus, originally ad by R. E. Gauthier by which it is said it can be grown as easily as wheat, and at less than the usual expense. We copy from the article in the Chronicle the following:—

Asparagus requires a great amount of heat; in cold soils it pushes slowly, and the quantity is not so good as in warm ground, we must, therefore, in unfavorable soils, have recourse to butting or earthing up, forming a conical heap on the base of each stool.

#### SOWING.

The seed should be selected from the plants that have been observed to give the fairest produce. It should be gathered when ripe, which is generally in September or October; and it should be sown immediately, in fresh, dry ground. The seeds should be lightly covered with some good vegetable mould.—In the month of May following, the plants will have attained the height of some inches. They should then be planted, choosing the strongest of those that have their buds farthest apart, and rather few roots. The plants, says Mr. Gauthier, which have their roots much developed, often yield small shoots.

#### PLANTING.

If the soil is strong it must be trenched and abundantly manured with leaves, decayed vegetables, or, perfectly, with street manure, finishing with some good soil at top. There are three ways of planting. 1st. At six or seven inches apart, for obtaining green asparagus, called *as. petit pois*. 2d. At thirteen inches, for asparagus, green or blanched, under glass. For the blanched, soil should put in the frames, or in the beds, to the height of about twelve or thirteen inches; for the green asparagus this is not necessary. 3d. At three feet three inches distant, in quincunx order, for the large blanched asparagus.—When the plants are sufficiently strong, generally when three or four years old, from over each stool a conical heap of soil like a large mole hill, ten or twelve inches high, and which



may be progressively augmented in following years, according to the strength of the plants, to twenty inches. This work should be done in a dry time. In March, the finest soil being gathered together by means of a hoe. The asparagus is gathered when it pushes an inch or two above the hills; and in doing this great care should be taken not to injure the crowns.—The fourth year after planting, only a few shoots are gathered from each stool; this gathering should not be continued for more than three weeks at most. In the climate of Paris the cutting of asparagus continues till the 15th of June; if prolonged beyond this period it will be at the expense of future crops. In the course of November we cut down all the stems to about thirteen inches. In this country (England) they are at once cut down to the ground. We then uncover the stools so as to leave on each only a very slight covering of soil. By so doing the maturity of the plants is perfected. Every second year, soon after the earthing up is taken down, it is necessary to give the asparagus plantations a good dressing of rotten dung. Those who prefer a different system of culture from that above indicated, should, however, says M. Gauthier, use plants of one year old, when they begin to push.

### FLORIDA.

#### Climate, Fruits and the War!

A correspondent of the Monroe Monitor gives the following interesting facts in regard to Florida:—

Leaving Fernandina on the fast sailing vessel Neptune, I started for the ancient City of Augustine, distant about 60 miles. A sandy beach extends the whole distance. From the mouth of the St. Johns Anastasia Inlet, the entrance to St. Augustine harbor, the beach extends in a perfectly straight line 45 miles. The City presents the best view, as you enter it from the Sea; when crossing the bar we encountered the land breeze, fragrant with the Orange and many of the tropical fruits of the country. The City is situated on a narrow Peninsula formed by the confluence of the waters of St. Sebastian and the sea, which is here backed in behind Anastasia Island. Although not larger than many of our Northern villages, it is regular laid out, and compactly built: many of the streets, are not more than three or four paces wide, and have neither side walks, or pavements. The houses are built of Coquina, a concrete of shell and sand, taken from the quarries on Anastasia Island. The lower windows have all wooden blinds, and are always closed unless some of the young Ladies are receiving calls, in that case the blinds are thrown open, and the gentleman, still in the street jeans on the window sill, while the young lady just out of sight of the passers by, entertains him. This I protest against, as one cannot stand it over half an hour at a time. The Piazzas generally extend from the base of the second story, where after the heat of the day is spent the Spanish and Minorcan Ladies may be seen walking to and fro with their fans, or beguiling their time with books. Unless you are a Yankee, you will get from them a pretty smile and nod. Two Piazzas cannot built on opposite sides of the street as one could easily step from one to another, while riding on horseback, one has to continually keep dodging, for fear of hitting his head. Everything in the city bears the traces of age, ruinous buildings, vacant lots, broken Coquina fences or rather walls, scarred by the ravages of Time and Fire, awaken a sense of desolation in the stranger.

The place has passed through perils, both by sea and land.—First George Drake, who was a representative of Elizabeth of England, a Protestant Queen, burnt and plundered the town in 1585. Twenty-five years passed away, when the natives of Florida a brave, warlike, but cruel band assailed, captured and burned the town to ashes. In 1665, Davis the Buccaneer, discovered this Spanish retreat, and with an armed band of Freebooters, captured and plundered it. Several times was it invaded, but abandoned through various causes. The Spaniards, and Indians, perpetrated acts of most wanton cruelty and barbarity in Carolina and Georgia; when they became too frequent to be endured, retaliation was inevitable. The negotiations between the United States and the King of Spain, put an end to all contentions.

It is related that immediately on exchange of flags in the city, a Methodist Itinerant was seen distributing Protestant books among the sons and daughters of the mother Church; this of course alarmed the Priest who could not brook such intrusion; he immediately threatened him with the indignation of his power, if he did not at once desist. The Minister looked at him a moment in silence, then with an impudent and significant movement of the eye pointed the worthy Priest to the Stars and Stripes, which now proudly floated over the battlement of the Bastille. This was unanswerable, and the Methodist Minister was left to proceed in his favorite work.—This was probably the first time he had been taught the lesson of forbearance, and to understand that under the Stars and Stripes, every man was protected, in his high prerogative—Freedom to worship God!

The Bastille is a Fortress of great strength covering several acres and built entirely of Coquina. Numerous cells are found within its walls, one of these have been but lately discovered, when found it was walled up. A human skeleton, a pair of rusty boots, and a mug for water, it was ascertained, were found within. For what offence this living being incarcerated, we can only conjecture. The walls around the city, have mostly crumbled away, and are covered with turf, with the exception of the gates, they stand from 25, to 80 feet high; there are niches for the Soldier to stand guard in. Just inside the North end of the wall is the grave yard. It is indeed a curiosity.—The coffins are made of hard wood and covered with raw untanned hide; but few are placed beneath the ground. Four walls of Coquina, are raised from the ground, about two and a half feet, the coffins are placed in them, and covered with a stone, bearing the inscription. Many of the covers have decayed, been broken, or lifted off, leaving the bones to the gaze of all. Some of the more wealthy have Tombs erected, large enough to contain a dozen bodies. I lifted the stone from an arch, and looked in, but quickly drew back in disgust. Grinning skulls and ghastly skeletons, lay scattered around in the utmost confusion, some ruthless, curiously hunter had broken open the coffins, and emptied the contents on the floor. I quickly closed it, and occupied the rest of my time in translating some of the Spanish inscriptions, nearly a hundred years old. The Convent situated about the centre of the city, is surrounded by a high wall but few persons are admitted, within its precincts.

Prior to 1835 this city was an immense Orange orchard.—Mature thrifty trees, sometimes produced 6,000 oranges, and the average produced per annum, of a single tree was 500.—When the business was in its prime the yearly export was between two and three million of dollars from this city alone; but one night in the month of February 1835, a frost cut off the entire species of the orange tribe, thus one of the greatest resources of the city was cut off, many were hurried from the seat of affluence, into poverty and distress. The city has never yet recovered from the blight of that stroke. Many shoots have sprung up, but have struggled under the pressure of disease, and the ravages of animalcula, which prey on the life young shoots. Before the war orange groves, Pine apple fields, bananas and cocoanuts, were in process of cultivation, by settlers, many of whom were from the North. The lands adapted to the cultivation of the pine apple are of limited extent, yet to an enterprising Northern man would be a source of more profit than the orange.

The fruit matures from the slips in about 18 months, and continues bearing for several years. One acre well cultivated will produce 40,000 pine apples, worth on the ground from four to six dollars a hundred; deduct for risks and transportation, one half; and the net profits would not be less than \$1000 per acre. What I have said with reference to pine apples and oranges, apply to the whole of South and East Florida. The dates, figs, limes, bananas, &c., &c., will be ripe the latter part of this month. I am anticipating much pleasure in plucking and eating them. The climate of St. Augustine, is cooler in Summer and warmer in Winter, than in the interior of the State; the only time when there is neither a sea or a land breeze, is from 5 to 9 in the morning, which is the hottest part of the day. The morning and evenings are always cool, it

used to be a great resort for Invalids especially from the North, the advantages here enjoyed are peculiar, it possesses a climate not less equable, and salubrious in Winter, than that of the South of Europe, the salt sea breeze always gives one an appetite. The moonlight evenings are beyond description. Those living at the North can have no idea of the brilliancy of the moon in this State, the finest print can easily be read, and objects seen for miles, almost as plain as by day, but alas, no one can enjoy them save the solitary Sentry, who challenges you after half past eight, and carries you to the Guard house.—The military keep guard over the City. Everything about tells of war; it is with a saddened heart, that one contemplates the destruction and desolation that always follows its footsteps.

#### Death of Dr. John A. Kennicott.

Died at his residence, "The Grove," Cook County, Illinois, Thursday morning, June 4, Dr. John A. Kennicott, aged 68 years.

In the decease of Dr. Kennicott horticultural science loses, one of its most ardent friends, and the cultivators of the soil one of their most honored and intelligent collaborators. Throughout the West and the East, he was better known as a horticulturist, a friend and advocate of agricultural education, and of the recognition of the interests of the agriculturist by the General and State Governments. He labored with tongue and pen to add to the intelligence, prosperity and dignity of the agriculturist, and to secure the elevation of the profession to its true position among other professions. To this end he identified himself with every movement calculated to bring about such a result. He was an early friend to the establishment of agricultural, horticultural and pomological societies.—He was President of the North American Pomological Convention, prior to its union with the Congress of Fruit Growers,—under the title of The American Pomological Congress. He was also active in the organization of the North-Western Fruit Growers' Association, of which he was its presiding officer one or two terms.

#### PRACTICAL FACTS.

**OAT STRAW AS A FOOD FOR SICK ANIMALS.**—"I have often noticed," says Dr. Dadd, "that sick horses will eat oat straw in preference to any other kind of fodder; as a matter of course, however, some will refuse to eat it. Oat straw contains a vast amount of nutrimental matter, and some phosphates, and when converted into a sort of bran by means of millstones is a very nourishing diet. This sort of aliment is very useful when combined with ground oats, for animals whose systems lack the requisite amount of phosphates. A milch cow, the subject of prostrating disease, is very much benefitted by food of this description."

**SALTING STOCK.**—Probably we do not know all the uses of salt in the animal economy; but a few are obvious. It acts beneficially upon the liver, yields a supply of soda to the bile, and gives increased nutritive power to the food. It acts as a vermifuge, keeping the bowels of stock free from worms, and gives increased tone to the stomach. It tends to prevent rot in sheep. As to the amount and time of giving it, farmers disagree. Some are accustomed to salt their stock regularly once a week. Many successful farmers keep salt within reach of their stock, believing that they will eat only as nature requires.

**LIVE AND DEAD WEIGHT OF SHEEP.**—The English rule is to weigh sheep when fasted, and divide the weight by 7 and call it quarters. Thus, a sheep weighing 140 lbs., will give 20 lbs. a quarter as the dead weight. If the sheep is in good condition, this rule is sufficiently accurate for all purposes. Poor sheep will fall below the mark, and extra fat ones go over it.

**PRESERVING FRUIT.**—To make good currant jelly, take a pound of sugar to a pint of juice; boil the juice by itself, twenty minutes in a brass kettle; skim it, and boil the sugar, also by itself, for five minutes, afterwards mix the juice and sugar, and boil five minutes or more, until the syrup appears to slightly thicken. All fruits are better preserved by pouring sugar upon them, and letting it stand a few days, and then reboiling it, than by cooking in one mass.

#### The Peach Borer.

A correspondent of the Rural N. Yorker, says: I beg to offer, I believe, an effectual remedy to check the ravages of this destructive pest. As you observe in your late number on the subject, the borer seeks the soft bark near the ground, but for the due maturity of its eggs it must have a portion of sand or loam whereon to deposit them. My plan is to carefully remove the earth to the depth of three or four inches and to the extent of ten or twelve inches round the trunk of the tree, which, with a brush, I carefully clean from dust or soil, carefully placing a border of bricks, or any other hard material round the outer edge. I then carefully sift from every particle of soil small gravel stones (the smaller the better,) washing is the most effectual way, and with them I fill in the space to about two inches above the land line around the trunk of the tree; and if from accident or other cause the stones become mixed with earth, I remove, cleanse and replace them. The borer not finding the necessary adjunct soil whereon to deposit its eggs, seeks other more congenial quarters, for instinct teaches the uselessness of depositing its eggs upon arid and inhospitable stone to perish. The recommendation is simple, and I may say costless, and what is of greater importance, permanent in its consequences. If the habits of insect life were more carefully studied, such absurd theories as torturing trees with "tenpennies" would not be entertained for a moment, and it is surprising how intelligent people can suffer themselves to be deluded. It is my course at all times, to endeavor to find the "why and the wherefore," and I would suggest the like course to others.

**NEW FRUIT FOES.**—Mr. B. D. Walsh, a correspondent of the *Prairie Farmer*, is "after" two new beetles which infest fruit. One is what is termed the plum gouger; the other a snout beetle. The former is very destructive, not only laying its eggs in the fruit, but also gouging into the fruit and devouring it, making a small round hole. It is about the size of the curculio, but has a smoother form; the latter is of the regular snout kind, and does great "injury to apple and cherry trees, as well as gooseberry bushes." They are quite large, being more than double the size of the curculio. Its general color is a dull silvery white, with dark markings, which are sometimes plain, and often indistinct. It is one of those whose home is west of the Mississippi river, very few ever having been found this side.

**The Grape crop of Ohio is said to promise more abundance the present season than it has ever before.**

## THE MICHIGAN FARMER.

DETROIT, AUGUST, 1863.

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*All Business Communications in regard to Subscriptions or Advertising should be addressed directly to BOND & SNYDER, Publishers of the Michigan Farmer, Detroit, in order to ensure immediate attention.*

## TO POSTMASTERS.

We often receive returned papers, with merely the name of the subscriber upon them, and not the town, in such cases it is difficult to find them, as we are obliged to go over 200 pages of names. Will they please to add the name of the Post Office.

"Postmasters are responsible for the subscription of a newspaper, or magazine, as long as they allow it to be received at their office, after it is uncanceled, or refused by the person to whom it is directed. The Postmaster General requires that a written note shall be sent to every publisher, that his paper or works lie dead in that office."

## NOTICE!

THE STATE FAIR FOR 1863.

THE MICHIGAN STATE AGRICULTURAL SOCIETY.

Will hold its Fifteenth Annual Fair,

AT KALAMAZOO,

On Tuesday, Wednesday, Thursday and Friday,

SEPTEMBER 22, 23, 24, and 25th.

## THE STATE FAIR.

The State Fair at Kalamazoo, promises to be one of the greatest gatherings of the people. We have had letters and information from many sections, and it would seem that representatives will be there from all quarters. The manufacturers of agricultural machinery and implements were so well satisfied with the trials of implements and machinery last year, that they are very anxious that that department should be extended. W. G. Beckwith, the Chairman of the committee on the trials of implements, was at Kalamazoo on the 5th instant examining the grounds, and advising with the Business Committee relative to the best location for the Plowing Match and the working of the various implements and machinery to be tested by actual trial. Very satisfactory arrangements are in course of preparation, and we think that the facilities afforded by this part of the exhibition will not be easily surpassed. In this connection, Messrs. Nichols & Shepard, of Battle Creek, are desirous of having a fair actual trial of threshing machines, and they have tendered the

State Society the use of a portable steam engine and fifty dollars towards the expenses of having a thorough test of this class of very important machinery. There are a large number of manufacturers of these machines in and out of the State, and it is the design of the Society, stimulated by the liberal offer of the firm above named to offer a class of premiums, which will draw out competition and afford a fair test. The chairman of the Implement Committee has accepted the offer, and arrangements will be made to have a stack of wheat on the ground, and the trial will be such as will be perfect as it can be made.

The buildings and fixtures on the fair ground are in the course of construction, and will be very complete. A long range of cattle sheds has already been erected on the north side of the grounds, and wells are being dug to provide water in the immediate vicinity of the live stock.

Floral Hall, which will be a great feature, as this exhibition, is in the hands of the builders. The show of Fruits, flowers and vegetable productions, is likely to be the grandest ever seen in the Northwest. The season so far has been so propitious, and the fruit of the western part of the State has done so well, that no opportunity could be better to exhibit the products of the orchards in perfection.

The buildings will consist—1st of long ranges of well covered structures that have been used for military purposes, situated on the north side of the grounds, and which will be used for the Secretary's office, for the show of vegetables, seeds and dairy produce, and also for the exhibition of domestic manufactures. Near these buildings will be erected the building for the exhibition of Poultry.

On the south-west corner of the grounds there is a large hall for the display of mechanical work; and here will be located the machinery and steam engine. Here also will be the ground for the arrangement of all kinds of farm implements and machinery not used in the trial of such implements.

The Floral Hall will be connected with the large tent, so that fruit and flowers may be shown as much as possible together. Floral hall is 100 feet long and 55 feet wide, with an L of 30 feet deep and 50 feet wide in the rear. It is designed to have a fountain in the centre which is to be supplied with fish, and the whole is to be got up in as handsome style as the art of decoration will permit. The L is to be used as a hall for the exhibition of pictures, and we believe that this alone will be one of the most attractive departments of the Fair. Floral Hall will contain the paintings, musical instruments, sewing machines,



and a general collection of all articles of ornament and design.

The Cattle, Sheep and Swine are to be located on the north and east sides of the ground, with the cattle ring for exhibition, on the inside of the track. The show of fine woolled sheep promises to be largely attended, and the Fair will afford the best opportunities for those who are desirous of selecting sheep with which to improve their flocks or to become acquainted with their owners. The sheep of Michigan are becoming known all over the Western States as valuable for their fine and heavy fleeces, and the show of choice pure bred animals promises to be very large.

The stock breeders, we learn, are going to turn out in full force, both from the east and from the west, and we look for such a collection of pure bred animals as will be worth seeing.

Of the display of Horses we shall be able to speak more fully in our next No.; but this part of the exhibition promises to be one of the greatest attractions, and will probably be unsurpassed in interest.

Should the weather prove propitious, (and without fair weather, no out-door exhibition can do well) the Fifteenth Annual Fair of the State Society will prove one of the greatest gatherings of the people ever seen in Michigan, and promises to be largely attended by representatives from all the great agricultural interests.

For the Michigan Farmer,  
**Proper Time for Sowing Wheat and the  
difference in Soils.**

MARSHALL, August, 1863.

MESSRS. EDITORS:—The wheat crop of this county is now secured. There were some remarkable fine fields of wheat; many others however were seriously injured, both by the fall and spring fly. The damage to the crop from this cause has been more general than I at first supposed. It is evident from reports received from other sections of the State, that in several counties the crop will not be more than half the usual average. There is reason to fear that early sown wheat will again suffer from the fall attacks of this insect unless as is sometimes the case, it has been followed up and nearly exterminated by its parasitic enemies. It is to be hoped that farmers who last year finished sowing in August and the first of September, will consult their true interests by deferring the work till a later period in the month. I am aware that in endeavoring to escape one calamity it is advisable if possible to avoid the opposite evil.

On stiff tenacious clay loams especially when not thoroughly underdrained, wheat sown after the month of September, is liable to be injured

by the winter and spring frosts; or if carried safely through the winter protected by its mantle of snow, it is more endangered by the attacks of the spring fly, it not being sufficiently vigorous to outgrow the effects of the injury. Late sown sandy soils also when not properly tilled are still more exposed to the attacks of this spring generation. In districts where the midge prevails, it is all important, that sowing should not be at so late a period, as to retard the ripening of the crop. It is a fact however no doubt familiar to every careful, observing farmer, that under the same conditions of the land there is scarcely any difference in the ripening of wheat sown the first or third week of September. There seems therefore to be a necessity for selecting a medium period for sowing as the best protection against the fly, avoiding at the same time other evils incident to, too late sowing.

A single frost is supposed to destroy all the insects while in the state of the fly. There is consequently, no danger to be apprehended if the wheat is not sown nor up until after an autumnal frost. In seasons therefore when the fly is known to be prevalent, it would doubtless be the safer plan to defer sowing until even the last week in September, should not a sharp frost in the mean time occur. In the climate of Michigan we seldom escape a frost through the month of September. Last season was one of those exceptions, that will sometimes occur in general rules, the effects whereof cannot be guarded against. If my recollection is right, there was no perceptible frost throughout the month of September, and I have no doubt that the present crop of wheat was materially injured by the insect in consequence of the very warm and unseasonable weather in October and, part of November, the very early sown fields of course suffering the most.

Every successful wheat grower, I presume, will readily admit, that one of the most effectual preventives of the ravages of the fly, is a rich soil thoroughly tilled. It invariably happens that the crop is most seriously injured on lands that have been carelessly tilled and have become impoverished by an exhausting course of cropping. The thin puny plants to such soils that are not entirely destroyed are left still more enfeebled, whereas when the fly time has passed, on well tilled fields properly enriched the wheat in a great measure recovers its luxuriance, the injury to the crop being comparatively slight.

I believe it has been generally conceded that in seasons of the fly the wheat suffers the most on sandy soils. There are perhaps two reasons for this proving conclusively to my mind that this need not necessarily be the case. Wheat sown at the same time germinates sooner, and comes

forward more rapidly on warm sandy loams, than on the stiffer, and colder clay soils. As the fly deposits its eggs soon after the young plants appear above ground, those first up afford the earliest receptacle and in all probability when the fly is in its greatest state of activity. Then again, although when rightly tilled, sandy loam, may be made our most valuable soils, they do not contain so large a percentage of the organic and mineral elements of the cereal crops, as the more tenacious clay soils; consequently under an exhausting system of cropping, where but little or no manure is used they are sooner impoverished, and when sown to wheat less able to withstand the fall and spring attacks of the fly.

I am satisfied from what experience I have had in the tillage of sandy loams since I have resided in Michigan, that when they are kept under a high state of cultivation as they may readily be by proper and timely appliances, no soils are so little exposed to the ravages of the fly. One standing advantage they have over the colder clay soils is, the later period to which sowing may safely be deferred, and a sufficiently vigorous growth in the fall be ensured.

WM. R. SCHUYLER.

**WHAT VARIETY OF WHEAT SHALL WE SOW?**

MR. EDITOR,—I see, by the last FARMER that you quote from a number of your exchanges in different parts of the State in regard to the present wheat crop. The most of them complain of the midge; in some locations there is not half a crop, while some fields have been plowed up or abandoned, as not worth harvesting.

This appears in a great measure to be the case throughout the State, and what is the cause and what the remedy? As no one has told you, and as you have not told us in your last number, allow me to speak through your valuable paper to the farmers of Michigan upon this important subject in the August number, for September will be too late.

The cause is—the sowing of white wheat.

The remedy is—sow the amber wheat, or bald or bearded Mediterranean varieties.

In the first place, it may be proper to say something of the different varieties. I am well satisfied that the farmers of Michigan are minus from two to four millions of bushels of wheat this year in consequence of sowing white wheat last fall, this is certainly a great loss, quite too much for the farmer to loose for want of a little knowledge; but how can the people hear without a preacher, and how can farmers get correct information of one another's experience, without the MICHIGAN FARMER?

I raised last year forty acres of wheat, all on summer fallow. I sowed three different varieties, viz: the Amber, the bald Mediterranean, and the White. I sowed the amber first, twelve acres on the 5th of September; it grew very rapidly, so that in six weeks the blades measured 16 inches above ground. I then put on 80 lambs to keep it from jointing, letting them run until snow fell, and there was not an insect to be found. I pastured the same this spring until the first of May. The result was I have a good crop of wheat.

I sowed 24 acres in another field, the soil and tillage was all alike, to the three varieties above named, with the following results, viz: four acres of amber sown on the 12th of September, ten acres to the bald Mediterranean on the 13th, and ten acres of white wheat on the 14th. The amber gave 40 dozen of large sheaves to the acre, (not threshed) but will probably yield 35 bushels at least. The bald Mediterranean we estimate at 25 bushels, while the white will not exceed 15 bushels, being injured by the fly or insects. Mine being somewhat late, it was not injured as bad as some in the neighborhood. I think I am minus 150 bushels by sowing white wheat—I think this is buying wit rather dear, and with my present feelings as to the result of my experiment, I do not think that I shall be caught in the same trap again very soon.

My neighbor, whose farm joins mine sowed 40 acres of white wheat on good summer fallow; he commenced sowing the 1st day of September and finished on the 6th; the result was, the insects did it much injury; and I think he is minus at least 400 bushels in consequence—he says he will not be caught so again for the next five years. In every case where wheat has been injured by insects or the weevil in this locality, it is the white wheat. In no case have I known insects to injure amber or red wheat to any extent. I propose to say something about the different varieties of wheat:

First. The amber wheat is a bald wheat, white chaff, rather short straw, when ripe the head curls, the berry is large and very uniform in size, and of a bright yellow or amber color, will weigh from 60 to 64 lbs. to the bushel, and is worth about as much in market as white wheat.

Second. The bald Mediterranean is also a bald wheat, some red chaff and some white, about one foot longer straw than the amber, heads stand erect, the berry not so uniform in size or complexion, evidently a mixed wheat, but will yield more than the bearded, and of a better quality.

There is need of comments on the white wheat for everybody knows what it is. The amber ripens four days earlier than the other varieties. I do not know where the amber wheat originated,

it was brought here from Indiana, and there is considerable raised in this vicinity.

Before I close, let me say that the wheat in this locality is better than usual, except where white wheat was sown. We have had plenty of rain of late and corn is looking fine.

Yours truly,  
Quincy, Aug. 3, 1863. JAMES CLIZBEE.

For the Michigan Farmer.

# **BRINING AND LIMING SEED WHEAT. SMUT, CHESSE, COCKLE, &c.**

GRATTAN, August 1st, 1863.

EDS. FARMER,—As the time is again approaching, I wish to say to you, please urge upon farmers the importance of sowing none but pure seed. Michigan, and particularly the western part of the State, now raises as good, if not the best white wheat now sent to the eastern markets or to Europe. And if our farmers would only use more care in the preparation of seed, and also eradicating foul seeds from their lands, much improvement might be made in the quality of our wheat.

First, in regard to Smut—I know that liming seed is a preventive. Ten years ago my wheat was more than one-fourth smut; since then I have limed my seed, and it has been a very rare thing to find a head of smut in my seed. My manner of liming seed is this: I first take to the barn a wash-tub, a barrel, and a bushel basket; then make a strong brine, and but into the tub as much as it will hold with a bushel of wheat; put that amount of wheat in the tub, and stir it well until the wheat is thoroughly wet; place the basket on the top of the barrel, and with a pail dip the wheat and brine into the basket, let it stand two or three minutes to drain; then pour the wheat on the floor and sift on about three quarts of fresh slacked lime. Stir it well with a shovel, and put it by in a pile, put another bushel in the tub, pour the brine from the barrel upon it, and treat as before, and so on until I have limed as much as I wish to sow on the next day. Shovel the whole into a conical pile, and sow in from six to twenty-four hours.

Now, as to how I know this to be a preventive. The smutty wheat raised ten years ago, as alluded to, I used for seed, and treated in the manner above described, except one seven paced land across the field, which was sown with the same wheat not limed; at harvest, the seed that was limed was free from smut, while that from the seed not thus prepared was at least half smut. I also loaned one of my neighbors seed to sow about three acres; he said that he would risk smut producing smut—the result was, that his at harvest, like mine that was not limed, was about

half smut. This may not *always* prove an infallible remedy, but with me it has proved so for ten years.

I will also give a little of my experience with Chess, Cockle, and other foul weeds.

Nineteen years ago I commenced on the farm I now own; it was new, the country here was all new, and I should have saved myself much trouble if I had taken the pains I have since learned was necessary to procure clean seed, and prevent the growth of the numerous noxious weeds which infest our farms. The first wheat which I sowed contained considerable chess and cockle; I continued to sow the same, without much effort to the seed for six years; at that time on account of sickness I was obliged to sow wheat after wheat, the result was, that the next year I had to run my wheat three times through the mill to make it passably marketable. Chess and cockle grew almost everywhere on my farm; I made up my mind it would not do; and I set about fighting the whole noxious tribe, and I think I have about conquered; I have not found a single head of chess in my wheat this year, and but a very few stalks of cockle; and without attempting to argue the interminable chess question, I can say, that I know that wheat never turns to chess. My method has been to sow none but clean seed; to plow my fallows before chess or cockle had ripened; after a few years they were so much reduced in quantity, that without taking much time, my men at harvest pocketed every spear they could find, and it was taken to the house and burned. Now I think I have in this matter, about arrived at the goal I have so long been seeking, viz: a farm free from chess and cockle. Farmers sometimes say, "I don't think it will pay to take so much pains," they raise chess and cockle, and get as much for their wheat as anybody; well, I am sorry to say that this is too much the case—buyers do not make the difference in the price that they should; but during the past year I have got as high as five cents a bushel above the market for wheat that had not received any cleaning, except that which was done by the separator when it was threshed. Then again, if five or six thousand bushels of worthless stuff is annually taken to the market with the wheat raised in this State, somebody is the loser thereby.

Will not farmers for the sake of pecuniary benefit, for the sake of a little honest pride, for the sake of the credit of the noble State in which we live, make a little more earnest effort to do the clean thing?

And remember always that in this as well as some other things, "eternal vigilance is the price of liberty."

and another thing, "eternal vigilance is the price of liberty."



Our correspondent's views as to brining and liming seed wheat are fully sustained by the following practical experience of a Kentucky farmer, who says: That in the fall of 1858 he prepared 20 acres of land for wheat, and at the same time his brother, whose farm adjoined his, prepared 10 acres. The land, seed, and mode of preparation and time of sowing were the same. The only difference was, he says, "my brother soaked his wheat before sowing in strong brine, and then rolled in lime, while I sowed mine without either. Now mark the results. At threshing time my yield was 13½ bushels to the acre, which was about an average yield in the neighborhood, while my brother's averaged 22 bushels to the acre. Still further, my wheat was damaged by the smut, while my brother's was entirely free from smut and all foreign seeds."

**For the Michigan Farmer,  
Sheep vs. Dogs.**

BURR OAK, July, 1863.

MESSEURS. EDITORS:—An article under this heading appears in the *Farmer* for this month. Will you allow me to make a brief explanation which I think will remove a misapprehension that both your correspondent and yourselves seem to entertain.

In framing an Act to protect sheep-owners against dogs, and to indemnify them for damages done by this generally worthless animal, the committee on Agriculture, (Hon. Mr. Crego, of Jackson, Chairman,) to whom was referred the very numerous and weighty petitions that were sent in from all parts of the State, found an unexpected difficulty at the beginning,—namely,—that Dogs were not known in law a *property*; that the Supreme Court, had decided in more than one case that they were not property. The committee desired to get up a Bill imposing a tax on dogs as upon other animals, and placing the fund so created in the Treasuries of the different counties, to be used in making good the losses to sheep-breeders in cases where the dog and his unfortunate owner could not be discovered.

But as these favored animal were not ranked as *property*, of course the only way to tax them was to place a *specific tax* upon every dog. This was the only thing that could be done, although the fund obtained by such tax could not be used to pay damage done by dogs. Why? Because Section first, Article fourteen of the State Constitution requires that "all specific State taxes, except those received from Mining Companies in the Upper Peninsula, shall be applied in paying the interest on the primary school, University, and other educational funds," &c. Yet it was thought that a tax of so much per head upon

every dog, rigidly levied and collected, might, at least, have the effect to lessen the number of worthless animals of this class in the State, and in this way reduce, somewhat, the immense losses which this great interest—sheep and wool-growing—annually suffers from their depredations. Until the dog is by law made property, I cannot see that anything better can be done. This disposal of the fund, cannot certainly be regarded as a misappropriation. Yours, &c. A MEMBER of the P. S. Our crops in St. Joseph county are good. Wheat will turn out a fair average, notwithstanding predictions of a light yield. Fruit is unusually abundant. Hay was rather light on account of the drouth, but was secured in prime order. Oats that were not got in early, are short and will be light on our opening lands.

**For the Michigan Farmer,  
The Temporizing Farmer.**

BY C. B. HOWELL.

There are temporizers among farmers, as well as among rulers, legislators, Cabinet officers and general army officers. There is a disposition on the part of too many farmers to look no farther than the ends of their nose, because of avarice, indolence or neglect. Rather than go to the expense of preparing a shelter for his farming utensils, Mr. Blank not only allows them to rust and rot, but permits them to become scattered here and there, so that much valuable time is employed in finding them when he desires to use them. Because Mr. Blank is too negligent to late in the fall to get up his sheep from some back field where he has pastured them through the season, but says he will leave them there "for the present" and "guesses no harm will come to them" and leaves them out in the daily storms of winter, he thereby loses some, and permits others to get in a condition which illy prepares them to breast the fierce storms of winter, and some of them give up the ghost by spring, and others appear like semi-skeletons.

Because Mr. Blank is foolhardy, he tries some wild experiment against the advice of well posted agriculturists, and his own sober judgement. Some sudden impulse, and some vague idea that what he is to do will surely succeed, he expends time, money and labor in something which proves a disastrous failure, over which he loudly bemoans his ill luck, and says that if he had only looked before he leaped he would not been so foolish.

If Mr. Blank makes improvements they are not permanent, he thinks that this or that tool will do "for the present," while if he would purchase

a better one, it would pay him what an estimate would indicate to be almost usury. Instead of rebuilding a fence with a view to permanent utility, he pleads for want of time, and fixes it with brush and old rails, "lying around loose," and after his crops get growing finely, his neighbors, or cattle from the street, walk through his fence as through a spider web, and hold high carnival among the tender, goodsome crops, and lay waste what has been produced by the patient toil of months. Mr. Blank thinks that his old waggon will probably do for the season, and only sees his mistake when it breaks down beneath the weight of a heavy load of hay or grain. He then blames himself for not having looked farther ahead, and examined the defects in his waggon earlier, and had them overcome, or a new vehicle purchased.

Thus work a temporizing policy. Let all farmers, as the good ones do, look with a sharp eye to their business, and not spare time, patience or money, to fitly prepare themselves and beasts of burden and tools for the work before them. "Procrastination is the thief of time," and a "stitch in time saves nine," as well among agriculturists as others. No plea of lack of means will excuse a temporizing course, for "an ounce of prevention is worth a pound of cure," and it is the much more economical method to lay well in the present the foundation upon which the future must stand.

Pontiac, July 23, 1863.

[The "Poetry" sent has been mislaid.—Ep.]

#### The Best Time to Sow Grass-seed.

A correspondent of the Boston Cultivator gives the following useful information upon this subject: I have an impression that experimental knowledge is the most valuable for the farmer. For more than half a century I have been experimenting to find the best time to sow grass-seed. For more than 30 of the first years of my farming, I did as my neighbors did; we supposed that the spring months were the only proper ones for that purpose. But later in life, by reading agricultural papers, I discovered that some enterprising farmers were successful in sowing their grass-seed in August or September. I tried the experiment with complete success; that being the season it would naturally fall; it appeared evident to my mind that it was the right one. But still later I have not been particular, and have sowed grass-seed at any season when my ground was prepared to receive it, and if the seed was good it has uniformly vegetated and done well.

Last fall we (my son and myself) after harvesting our potatoes from low, wet soil, which would not admit of seeding down in early spring, sowed herds-grass and red-top seed on the 14th and 15th

of October upon said potato field, doubting, but still hoping for the best; and now, the 8th of July, it bids fair to give us the best crop of hay produced on any of my farm lots. This grass probably will require two weeks longer time to grow than that which has been seeded down longer. I think I never saw seed vegetate any better at any season. Grass-seed will vegetate a long time after being sowed. In the spring of 1826, I seeded down a lot of good ground, but rather dry, with red-top seed; the months of June and July were uncommonly dry, and at the middle of August there was no appearance of a grass sprout on the piece. On the 10th of August, the same year, it began to rain profusely and continued raining for several weeks till the ground was saturated. In September, more than four months after the seed was sown, every seed seemed to vegetate, and the ground appeared like a beautiful lawn. And on the whole, I have concluded that any time when our land is in a good state of preparation to receive the seed, is the best time to sow it.

#### Wheat on Corn Stubble.

On this subject two correspondents of the *Prairie Farmer*, write as follows:—

Your correspondent S. in the *Farmer* of June 13th., wishes the experience of old wheat growers, in regard to sowing wheat on corn stubble.—I have raised wheat six years in this country and four out of a portion of it have been on corn stubble without plowing and each year has had as good wheat as on fall plowing. Have cut and burnt the stalks, if the cattle did not clean them out pretty thoroughly. I am fully satisfied that wheat will always do well sowed in this way, provided the ground was well plowed the year before, the corn well tended, and the wheat well covered. It is very important that the wheat be well put in; some of my neighbors left the stalks standing and put their wheat in with a double shovel plow or cultivator, going over it after with harrow, and it is looking well.

Another fact I have learned that it pays better to plow wheat stubble early, than to delay it till late in fall, and that spring plowing does not pay at all, unless the next season should be a wet one, and such season it seldom pays even on any soil however prepared.

H. A. Mons.

It is good policy to sow wheat or oats in corn ground, provided the corn was well tended and the ground clean of weeds. I have practiced that way of raising wheat over 15 years, and am well satisfied that is the best way to raise wheat. I would not have my land plowed in the spring of the year though I got it done for nothing. But wheat must not be put in a slovenly and miserable

way. As Mr. S. says, it ought to be put in with a two-horse cultivator and finished with harrowing, covering your seed good but not deep. Wheat put in this way will yield more bushels to the acre than any other way I know of. I have tried it this way side by side with spring plowing. The latter is more liable to be destroyed with chinch bug than wheat put in on the above plan. But probably Mr. S's ground is heavy clay soil, and cattle allowed to winter on it. In that case the ground will be so hard packed that it will be hard to get the seed in good order.

I would advise Mr. S., next year, when he plows his corn ground, to leave a small strip unplowed, and put in as above, and that will prove what suits his ground best. Crops of all kinds look well at this time, but a good heavy rain would do good.

JAMES DUFF.

For the Michigan Farmer.

#### Canada Thistles.

THORNVILLE, Lapeer co., July 30, 1863.

Messrs. Editors.—I see in your July No. much said about Canada Thistles. I fought this pest for a long time with little success as to getting rid of them, until I tried the following:

Cover them with straw, say two feet thick in the spring, and as soon as they begin to come thro' the straw, turn it over so as to cover and keep them from the sun, and continue so to do through the season, and they will all die with the consumption in one summer. I had one acre of them as flourishing as any that could be produced any where, and by serving that way, the next season all that was alive would not, if put together, cover one rod square. Another good way to destroy them is—cut them six times in one season, and they will bleed to death.

BENJ. THORNE.

#### Stacking and Drying Beans.

A correspondent of the Rural New-Yorker gives the following:—I use two stakes instead of one, seven or eight feet long, and from one and a half to two inches through. Set them in the ground about two inches apart; put a withe on the stakes a foot or eighteen inches from the ground; take a small handful of beans and lay the roots between the stakes, so far through that the tops will not reach the ground; then a bunch on the other side in the same way. After this, the roots only should come between the stakes, and the roots of each bunch should be laid at right angles with those of the bunch preceding. When within a foot of the top of the stakes, put on another withe, drawing the stakes together to hug the roots closely, then fill up with beans, as before, to the top; then take two bunches of beans, tie the roots together and lay astride the top, and it is finished.

Beans stacked in this way will never mould, as they often will when stacked around one stake. They should be stacked as soon as pulled, and always handled by the roots. When the stacks are thoroughly dry, they may be taken to the ground whole, pulling the stakes from the ground.

#### Depth of Plowing.

At a late meeting of the Connecticut-River Harvest Club, in Bernardston, Mass., a discussion took place in regard to the proper depth of plowing, and the depth to which manures should be buried in the soil. As usual, when farmers express their opinions on this subject, there was to be considerable difference in theory and practice.

One of the Granite-State farmers said he plowed under coarse manures, and harrowed in the finer. The depth of plowing should depend upon the quantity of manure, just as the quantity of meal regulates the amount of swill. People who do not measure are apt to misjudge in the depth of plowing, and think they plow deeper than they really do.

Nelson Burroughs, of Giff, thought little benefit was derived the first year from manures buried eight inches deep. His largest crops were obtained by harrowing in manure. He don't plow as deep as formerly.

T. J. Field, of Northfield, spoke of two experiments were light land was subsoiled with injury, and thought manures buried eight inches deep was seldom heard from.

President Severance, of Greenfield, thought the roots of crops run deeper than is generally supposed. He had measured corn roots than ran down 12, 13 and 15 inches deep. Broom corn usually roots deeper than corn. A piece of clayey loam, subsoiled by him 15 years ago, has ever since borne two good crops of grass per annum.

Phineas Stedman, of Chicopee, said he harrowed in manure chiefly, and plowed in long manure about five inches deep. Thought the shallow plowing of turf would give a larger crop than deep plowing, but it would be more difficult to hoe.

Messrs. Lyman and Purple, both of Northfield, said they plowed six to seven inches deep, used the Michigan plow, and manured on top more than formerly. If manure needed covering, as on old land, they would plow it with one horse, going the same way as for the main plowing, to prevent starting up the turf. They liked manuring in the hill.

GRAIN APHIS.—The grain louse which troubled our grain crops last year, is causing considerable damage to grain fields in Wisconsin and Illinois this season. We have not learned of its appearance yet in Michigan.



## HOUSEHOLD WORDS.

## POP.

And there they sat, a popping corn.

John Stiles and Susan Cutler;

John Stiles as fat as any ox,

And Susan as fat as butter!

And there they sat and shelled the corn.

And raked and stirred the fire,

And talked of different kinds of ears,

And hitched their chairs up nigher.

Then Susan she shook the popper shook,

Then John he shook the popper—

Till both their faces grew as red

As the saucers made of copper,

And then they shelled, and popped and ate

All kinds of fun a poking—

While he haw-haw'd at her remarks,

And she laughed at his joking.

And still they popped, and still they ate,

John's mouth was like a hopper—

And stirred the fire and sprinkled salt,

And shook and shook the popper.

The clock struck nine—the clock struck ten,

And still the corn kept popping—

It struck eleven and—then struck twelve!

And still no signs of stopping!

John he ate, and Sue she thought

The corn did pop and patter—

Till John cried out, "The corn's a fire!

Why Susan, what's the matter?"

Said she, "John Stiles it's one o'clock—

You'll die of indigestion!

I'm sick of all this popping corn!

Why don't you pop the question?"

## The Irish Potato.

How sweet to the taste is the Irish Potato!

As memory awakens a thought of the plant,

Its dark verdant vine-top and beautiful blossom,

In pleasant transition my memory haunts.

Aye! thought of the root in profusion once growing,

On the broad, sunny hill-slope adjoining the mill,

At the homestead, how many we raised there's no knowing,

For some were but small ones, and few in a hill.

The mealy potato, the Irish potato,

The thin-skinned potato that grew on the hill.

That delectable plant I would praise while I'm able,

For often at noon when returned from the field,

I found it superior to all on the table—

The best-flavored edible that nature could yield.

With what eager appetite, sharpened by labor,

I piled knife and fork with a hearty good will;

Alas, there are none of the old-fashioned flavor,

The mealy potato, the Irish potato,

The thin-skinned potato that grew on the hill.

How prime from the full-heaven dish to receive it,

As, poised on my fork, it ascends to my mouth!

No appeal to the palate could tempt me to leave it,

Though affected by "rot" or a long summer's drench,

And now far removed from that situation,

Where I used to partake of the root to my fill,

Fancy fain would revert to my father's plantation,

And sigh for the "Kilneys" that grow on the hill.

The mealy potato, the Irish potato,

The thin-skinned potato that grew on the hill.

A young lady who had lost her bean, was advised to hang up her fiddle. She said the advice did great violence to her heart strings.

For the Michigan Farmer.

## A Mother's Duties.

We all know what the duties of a gardener are. In the spring, it is necessary for him to prepare the ground and plant the seeds, which, when they show their little heads above ground, need constant care and attention. First, they have to be protected from the chilly blasts of early spring, at other times the glaring sun would scorch them, were they not carefully covered by the gardener. Even when they are fully grown, they must be kept clear of weeds, for if the weeds are permitted to have place in a garden, they soon overrun the flowers, and thus destroy them. And do not a mother's duties resemble a gardener's? Is not her child's mind the garden which she must cultivate?

She prepares her child's infant mind for the teachings which shall come in after years, and she gradually, both by precept and example, plants either good or bad seed, which will afterward spring up and bear fruit. If the seed she has sown is good, how carefully must she watch it, and when it has taken root, how constantly she must guard it against the chilly blasts of sin and glaring temptations of this world. And when this good seed has expanded and its beauties and virtues shine forth in all their perfection and loveliness, then, even then, must it be kept from the deceitful lusts of this world, which like weeds in a garden would corrupt its virtue, render them unlovely, and finally destroy them altogether. Thus we see that a mother's and a gardener's duties have great similitude, and yet how different, for one is imposed by man, the other by God Himself.

H. A. M.

Detroit, July, 1863.

For the Michigan Farmer.

## A Bachelor's Sentiments.

MESSRS. EDITORS,—If you will confer the honor on a bachelor, to express his sentiments of approbation and appreciation of the maiden who composed the lines in the last Farmer, entitled, "In the Market," you will greatly favor him. For the instant that I read them, I was struck with the simplicity, excellence, and genuine virtue that its fair authoress seems to possess.

She seems to censure bachelors for their lack of courage and wisdom in not buying, or in other words, in not getting married. The causes, however, for bachelors not getting married are numerous; and if I am a judge the principal causes are—

First. The fear of not getting a suitable companion, on account that she may possibly have some enormous faults that they are not able to be aware of.

Second. Especially among the poorer classes,

the inability of maintaining a wife, and shudder at the responsibility of becoming the head of a family.

Third. The aversion of having their freedom, liberties, and their rambling privileges and properties infringed upon in the least. And it is a good thing that some of them do look at these objections, as there are many of them have not manly principle enough about them to become the partner of any good woman. And at the same time there are plenty of women that have not the requisite qualities of becoming the wife of a worthy man.

But it is not my province to dive into critical investigation and expose the faults, follies and vices of the human family. Notwithstanding I have seen many single persons that I thought it would be a good thing to the world if they would always stay unmarried, as they are utterly unqualified to live a married life; and, on the other hand, I have seen many, alas! too many, married persons live such a life that it would disgrace a savage.

Marriage is the natural state for both male and female, and where parties of good morals and suitable dispositions engage in the marriage rites, and resolve to bear one another's burdens thro' life, and to do all they can to administer to each other's happiness, will realize untold pleasures.—The greatest barriers to matrimonial weal, are vice and dispositions or temperaments not at all adopted to one another. And as marriage is one of the most important and eventful steps in life, it is well for the unsuspicious swain and confiding damsel to study respective characters, and to keep their eyes open when selecting and accepting conjugal companions. But when a young man finds a feminine possessing the qualities described in the lines referred to, he need not be afraid to make her his wife, if he is worthy of her, and young maidens the cardinal points of a good husband are morality, industry and a kind disposition, and when the hand of such a man is proffered, accept it if you are worthy. I advise all to marry if they see mutual benefit and happiness will be the result; and if they cannot foresee such a destiny, they had better remain as they are.

RURAL CITIZEN.

The above is very good for so fair a bachelor(!).

**PRESERVING TOMATOES.**—Take sound and ripe tomatoes, scald lightly and skin, and pack in bottles or jars; stand these in a kettle of boiling water sufficiently long to get thoroughly hot, remove and seal up air-tight. We have been assured that tomatoes thus treated will remain good for a long time, and come out as fresh as when first picked.

#### Sickness not Causeless.

*There never was a disease without a cause!* and almost always the cause is in the person who is ill; he has either done something which he ought not to have done, or he has omitted something which he should have attended to.

Another important item is, that sickness does not, as a general thing come on suddenly; as seldom does it thus come, as a house becomes enveloped in flames, on the instant of the fire first breaking out. There is generally a spark, a tiny flame, a trifling blaze. It is so with disease, and promptitude is always an important element of safety and deliverance. A little child wakes up in the night with a disturbing cough, but which after a while passes off, and the parents feel relieved; the second night the cough is more decided; the third, it is the Croup, and in a few hours more, the darling is DEAD!

Had that child been kept warm in bed the during the whole day after the first coughing was noticed, had fed lightly, and got abundant, warm sleep, it would have had no cough the second night, and the day after would have been well.

An incalculable amount of human suffering, and many lives would be saved every year, if two things were done uniformly.

First, when any uncomfortable feeling is noticed begin at once, trace the cause of it and avoid that cause ever after.

Second, use means at once, to remove the symptom; and among these, the best, those which are most universally available and applicable, are rest, warmth, abstinence, a clean person, and pure air. When animals are ill, they follow nature's instinct, and lie down to rest. Many a valuable life has been lost by the unwise efforts of the patient to "keep up," when the most fitting place was a warm bed and a quiet apartment.

Some attempt to "harden their constitutions," by exposing themselves to the causes which induced their sufferings, as if they could by so doing, get accustomed to the exposure, and ever thereafter endure it with impunity. A good constitution, like a good garment, lasts the longer by its being taken care of. If a finger has been burnt by putting it in the fire, and is cured ever so well, it will be burned again as often as it is put in the fire; such a result is inevitable. There is no such thing as hardening one's self against the causes of disease. What gives a man cold to-day, will give him cold to-morrow, and the next day, and the next. What lays in the stomach like a heavy weight to-day, will do the same to-morrow; not in a less degree, but a greater; and as we get older, or get more under the influence of disease, lesser causes have greater ill effects; so that the older we get, the greater need is there

for increased efforts to favor ourselves, to avoid hardships and exposures, and be more prompt in rectifying any "symptom," by rest, warmth, and abstinence.—*Hall's Journal of Health.*

#### Eugenie and Clotilde.

Royalty in palaces has its troubles as well as the dwellers in cottages—these royal ladies are not on the most pleasant terms it would seem.

The Empress, while staying at St. Cloud, paid a visit to the Princess Clotilde, wife of Prince Napoleon, on her return from Egypt. The visit must be considered one of pure ceremony, for the ladies are not on good terms. It pleased heaven to inspire them with dislike of each other at the beginning of their connexion, and not to diminish it on further acquaintance. That the Princess should dislike the Empress is perfectly natural—she would not be a true woman if she did not.—She occupies only a secondary place, and the Empress enjoys the splendor of one of the first thrones in Europe; and yet the Empress is only a simple lady, the daughter of a Spanish noble.—She is not even noble on her mother's side, for her mother is the daughter of a poor Scotchman, who was British Consul, on a wretched salary, in a third-rate Spanish town. Whereas, the Princess was born in the purple; is of the House of Savoy, one of the most ancient and illustrious of the reigning families of Europe—is the daughter of the king of a great nation, and is through her mother closely allied the high, powerful, ancient Hapsburgs, sovereigns of Austria. Verily, her pride of birth—her woman's vanity must be wounded at giving precedence and paying homage to the Spanish lady! And to her constant humiliation must be added personal dislike. In character, taste, in everything, she is different in from the Empress even in religion, though both are fervent Catholics, they are not the same—the Empress' faith being like that of all Spanish people tainted with abject superstition, the Princess' pure and more independent. The Empress, moreover, regards with horror Victor Emmanuel, because he is excommunicated, and abhors the Italians because they want to abridge the temporal power of the Papacy, and the Princess loves and admires her father, as a good daughter should, and is Italian to the very heart. But tho' these two personages are not and cannot be on good terms, they have not of late manifested their mutual repulsion in so marked a manner as formerly. At one time (like other women) they used to say terribly bitter things of each other, and whenever they happened to come in contact to show each other marks of aversion. But now they have silenced their tongues, and for decency's sake have agreed—(par ordre of their respective husbands,

dit on)—to avoid in public the manifestations of the sentiments which fill their hearts. Full of bitterness, however those hearts remain!

**MAKE YOUR CHILDREN SING.**—All children can learn to sing if they commence in season. In Germany every child is taught to use his voice while young. In their schools all join in singing as a regular exercise, as they attend to the study of geography; and in their churches singing is not confined to the choir, who sit apart from the others, perhaps in one corner of the house, but there is a vast tide of incense going forth to God from every heart that can give utterance to this language from the soul. In addition to the delightful influence music has upon the character, it has also a marked influence in suppressing pulmonary complaints. Dr. Rusli used to say that the reason why the Germans seldom die of the consumption was, that they were always singing. What is more pleasing to parents, than to hear the voices of their children pouring forth like birds that melodious harmony in the home circle, so dear to all enlightened minds. We say again, learn your children to sing, it makes a happy spot of "Home—Sweet Home."

**WHY SALT IS HEALTHFUL.**—From time immemorial it has been known that without salt men would miserably perish; and among the horrible punishments entailing certain death, that of feeding culprits on saltless food is said to have prevailed in barbarous times. Maggots and corruption are spoken of by some writers as the distressing symptoms which saltless food engenders; but no ancient or unchemical modern could explain how such suffering arose. Now we know why the animal craves salt, why it suffers discomfort, and why it ultimately falls into disease if salt is for a time withheld. Upwards of half the saline matter of the blood—fifty-seven per cent.—consists of common salt; and as this partly discharged every day through the skin and kidneys, the necessity of it to the healthful body becomes perfectly obvious. The bile also contains soda as a special and indispensable constituent, and so do all the cartilages of the body. Stint the supply of salt, therefore, and neither will the bile be able properly to assist digestion, nor the cartilages built up again as fast as they naturally would waste.—*Professor Johnson.*

**PROPER QUESTION.**—The question has been asked, why is it considered impolite for gentlemen to go in the presence of ladies, in their shirt sleeves, while it is considered in every way correct for the ladies themselves to appear before gentleman without any sleeves.



## August—Our Medicinal Herbs.

The N. Eng. Farmer gives the following a very interesting article on the subject named, it should be read and remembered by every house-keeper, as it is well known, that the Indians cure *all* the common diseases by the means of simple herbs provided by nature for this specific purpose:

All the ancient customs of herb gathering seem to be falling into neglect. The simpler, whose labors were so valuable to a distant by-gone generation, has become as rare as a hermit; her labors are now appreciated only by a few; and those few are such as have not kept peace with the community's progress in knowledge. There was a time when the simpler was one of the most important personages in any village neighborhood. The majority of the people in the village and the country around depended on her labors and her collections for the medicines which were to save them from disease, restore them to health, or enlighten them to understand the value of chemical manipulations, and the superior efficacy of those drugs which had been prepared under the direction of a learned chemist or physician. Nature was supposed to be wiser than the apothecary; but it was beyond the comprehension of these simple-minded people, to understand, that it was not nature, after all, who was prescribing to them; but that, on the contrary, it was they who were prescribing to themselves.

Nature produces certain medicinal herbs; but she never yet revealed to any one the uses for which they were designed. All this must be learned by investigation and experiment; and he who pulls up a weed from this garden and administers a decoction of it to himself or to a patient is no more under the guidance of Nature in his practice, than one who prepares his medicines with a pestle and mortar, from the chemicals of the apothecary.

But our present object is not to decry the use of our native or domestic medicinal herbs, but to say a few words upon their real value, and to give a few hints concerning them which may be instructive to those who are not acquainted with them. There are many valuable medicinal plants, both in our fields and in our gardens; but they are valuable rather as cordials, restoratives and anodynes, than as specifics for the cure of disease. The cure of real disease should always be left to a physician, who, being entirely devoted to the study and practice of the healing art, must necessarily, if he possess common power of mind, understand it better than the wisest man belonging to other trades and occupations. A wise physician always consults a farmer, when he wants advice concerning the raising of his animals or his crops; and he must be a stupid farmer, who should imagine that on this account he knew more than the physician about the cure of disease. In our opinion, Nature has very kindly furnished her creatures with these simples, which are procured from the field, that we may safely resort to them, when we need a gentle restorative, but are not sick enough to require a physician. We may be suffering from too much fatigue, or from exposure to heat or chills, and we may require a simple cordial or a sweating draught; and in these plain cases the herbs of the field or garden may furnish an agreeable and a sufficient remedy. The experience of the simpler may then be used with advantage; but to consult her in cases of decided disease would be like asking advice of the builder of a wigwag for planning and constructing a modern dwellinghouse.

It is curious to note the classification of these herbs which was made by our ancestors, in the mother country, two or three centuries ago, at a time, when the chemical science was hardly known, and physicians themselves were obliged to use these simples as their only remedies. We will, for the amusement of the reader, copy this classification. It will be perceived that all the herbs are arranged either in fours or fives. These were:

Four greater Carminative Hot Seeds: Anise, Caraway, Cummin, Fennel.

Four lesser Hot Seeds: Bishop's Weed, Stone-parley, Smallage, Wild Carrot.

Four Cold Seeds: Cucumber, Gourd Melon, Watermelon.

Four lesser Cold Seeds: Endive, Lettuce, Purslane, Succory.

Five Opening Roots: Asparagus, Butcher's Broom, Fennel, Parsley and Smallage.

Five lesser Opening Roots: Capewort, Dandelion, Eryngo, Mad-dor, Rest-barrow.

Five Emollient Herbs: Beet, Mallow, Marsh Mallow, French Mercury and Violet.

Five Capillary Herbs: Hart's-Tongue, Black, White and Golden Maiden-hair and Spleenwort.

Four Sudorific Woods: Guaiacum, Perfumed Cherry, Sassa-parilla and Sassafras.

Four Cordial Flowers: Borage, Bugloss, Rose and Violets.

Four Carminative Flowers: Camomile, Dill, Feverfew, and Melilot.

Four Resolvent Meals: Barley, Bean, Linseed and Rye.

We must confess that we read these things with some respect, though their peculiarity excites a smile. There was more ingenuity than truth or philosophy, in conforming the numbers of these seeds and herbs, invariably to four or five; since we know that each list may not only be doubled but extended to an indefinite number. Each one of these plants has really the virtues assigned it; and this formality of classification seemed not only to render the table more attractive, but to fix it more indelibly in the mind.

All cordial herbs, condiments and correctives come properly under the head of medicines; and though we may use them every day and while in health, they are still medicines, and nothing else. Such it is said are tea and coffee, and such are the hot and the sweet spices which we use with our food. Wines and spirits are medicines, and we have often been amused at the self-satisfied remark which we sometimes hear from the lips of an habitual guzzler of alcoholic liquors—that *he never takes medicine*!

People of Europe and America have for many years employed themselves in discovering some plant which can be used as a substitute for tea, with equally good effects. It may not be out of place, in this essay, to name a few of these plants which have been the most generally used as substitutes for the China tea.

The most prominent of these substitutes is the Jersey tea, (*Catharus Americana*), which was extensively used by our people during the Revolution. It is a small shrub, very common in our dry, wooded pastures, covered almost entirely in June with bunches of exceedingly delicate white flowers. The leaves were the parts of the plant which were used; but we have never ascertained precisely the nature of its effects upon the human system. We have reason to suppose, however, that they were not disagreeable or injurious. Among other substitutes may be named the common Agrimony; the Sweet Scented Vernal grass; the Willow herb; the Partridge berry leaves; the Labrador tea, (*Ledum latifolium*); the Oswego tea, (*Monarda palmiana*); the Syriacs; the Primus glaber; the Consumption flower, (*Pyrrola rotundifolia*); the Sweet Briar; the Swamp Rose; the Sweet Golden Rod, (*Solidago odora*); the Black Currant; the common Strawberry; and about twenty other plants, native and exotic. The leaves which have been found in the possession of the manufacturers of China tea are those of the Sloe tree; the Ash tree; the Elder bush and White Thorn. They are described as having been boiled, in some instances, with fogwood, or scalded, then rolled up and dried, the green bloom being given to them by Dutch Pink.

The Germans use the leaves of the common Strawberry as a substitute for Green tea. The leaves are gathered in the spring, while they are young, and only the smallest and cleanest leaves are selected, as they are not to be washed. They are dried in the shade, and the leaves, after being deprived of their stems, and warmed over the fire, are rolled up in the hand while they remain flexible, and then dried again. They are then fit for use, and on being steeped in the same manner as the China green tea, it is hardly possible to tell the difference. Probably we should soon experience the want of that invigorating influence from this preparation which proceeds from the genuine tea leaf. The leaf, however, of the *Ledum latifolium*, or Labrador tea, is said to possess a grateful aromatic bitter, and is highly salutary and invigorating. This plant

might easily be cultivated and grows best in poor, light soils. Were any person to discover a plant which is easy of cultivation and production, and which possesses all the good qualities of the China plant, without any injurious qualities, it would be a fortune to him.

The object of our present remarks is not, however, to recommend any search after this "philosopher's stone," but simply to advise a more general attention to the study of our common medicinal herbs, in order to be able to distinguish those which are safe and wholesome from those which are injurious or poisonous.

We have no great faith in the utility of these herbs for the cure of diseases; but for many simple purposes they are highly valuable, and the habit of paying attention to them leads to the accurate observation of plants, and requires a preliminary knowledge of botany, which ought always to be understood by the tiller of the soil.

### HOUSEHOLD RECIPES.

**WHORTLEBERRY WINE.**—We are indebted to Mr. Ezra T. Bryan, of Marengo, for a bottle of excellent wine, made from whortleberries three years ago. It is very mild, pleasant to the taste, and is easily made. Below we give his recipe:

Scald the berries about fifteen minutes, then express the juice. Then add one-half or three times as much water as juice, and set away a few days until it gets through working. Add one lb. ginger and one lb. allspice to the barrel—about one and a half lbs. sugar to the gallon. Keep tightly corked—will be good to use in about six months, and improves with age.

We also acknowledge the receipt of a bottle of excellent cider—very much like champagne—from the same source.—*Democratic Expounder.*

**MAKING VINEGAR.**—T. B. Miller, of Clayton, Indiana, has communicated to the New York Farmers' Club the following simple recipes for making vinegar:

Fill nearly full any vessel, jug, crock, pan, tub or barrel with pure rain or soft water, sweeten it with any kind of molasses (the quantity is not material), set it in a moderately warm place, or in the sun, cover it with sive-gauze or net, to keep out flies and gnats. In due process of time it will be vinegar, when it must be put into a suitable vessel and stopped close. To convert cider into vinegar—if made from sweet apples, it is only necessary to set the barrel in a warm place and knock out the bung; if from sour, bung up tight. Vinegar barrels should be well painted, as they are liable to be eaten by worms.

It will be proper to state that it is the action of the atmosphere which in time converts sweetened water into vinegar, hence the greater the surface of water exposed to its influence the sooner will sour. There is a thick scum rises on the top of the vinegar when making, which is the "mother" and should not be thrown away.

Short dresses are said to be coming in fashion, and next winter nothing else will be seen in the grand salons of Paris.

### Champagne Cider.

After the apples are crushed, press out the juice, put in a clean cask and leave out the bung. It will work without anything being put in; in four or five days draw off, and put into another clean cask. Do this three or four times, allowing as many days between each changing. It does not work well in cloudy weather, and so must be left longer. If it does not fine well it will not keep sweet. To assist the fining, dissolve six ounces of gelatine for each hogshead and mix; do this previous to the last change of cask.

The quality of cider depends upon the sort of apples used. Two parts sour apples and one part sweet will make good cider.

Now observe, let there be no time lost in the whole process, but allow sufficient time to do it well. It is particles of pulp left in the cider that causes it to turn sour. To effect the proper clarifying and working, it will require four changes of cask, that is if you want first-rate cider. Do not put any water in any part of the process—have all juice.

After the last change, the cider may remain in the cask, bunged up two or three months. You can then bottle off—lay the bottles down in a cold, dark cellar—some will burst, but then you must put up with it. It will be fit to use during the summer, when all parts of the work have been well done. The bottled cider will be equal to champagne, and will keep sweet. Some put brandy, rum, gin, or other spirits in—it does not preserve it, but only makes it intoxicating.

If you can get pine-apples very cheap, two or three, crushed up in each hogshead of juice will be a great improvement. If you keep the cider in casks, be sure that they are sound and air-tight, and very clean. Wash out with cold water, and scald out your cask—fumigate with rag of sulphur—melt the sulphur and then dip the rag in, a piece about one foot square will be sufficient for a hogshead—light the rag and then put in the hogshead—leave out the spile peg only. This will destroy all must or mildew, or any other bad taste in the cask.

**FLORAL ORNAMENT.**—Procure a tin box—any tin-smith can make one two inches deep, and about a foot in diameter, made in a circular form, having a space one and a-half inches wide around the outer edge (a small tin pan placed in a larger one will perhaps give an idea of it.) have it painted green, and keep the space around the edge filled with water. Arrange flowers in it, and it presents the appearance of a wreath lying on the table, the water keeping the flowers fresh and bright. A lamp, gas-burner, statuette or vase of flowers can be placed in the centre. It forms a very neat floral ornament.

## FLORICULTURE.

### Monroe Horticultural Society.

The Ladies of Monroe are doing more for the development and improvement of the gifts of Flora and Pomona than the men in the State at large. We admire their perseverance and think the masculines may learn a lesson from them. Their meetings are very regular, and the reports as published in the Commercial, are interesting and instructive. We give below extracts from their proceedings:

#### CULTURE OF THE OLEANDER.

Nerium, (Oleander) is a genus of beautiful and ornamental shrubs, of the easiest culture and abundant in flower. If they have grown irregularly and are not headed down or otherwise pruned in March, it should be done in April. Oleanders are very subject to the white scale insect, and before the heat of Summer begins they should be completely cleaned. A very good method of destroying the insect is to wash the branches and leaves separately in warm suds with a cloth or sponge. The Oleander will flower much earlier in the Spring by removing in the Fall merely the flowers which do not remove themselves, and allowing the stems to remain, upon which new buds will again start earlier in the season than if both had to grow. They should have light, rich soil, and large pots, require a great deal of water, and but little drainage. They are much improved by showering. Cuttings for propagation should have a little of the old wood. The easiest way of sprouting, is to place them in a little pulverized charcoal and seal up the bottle with beeswax so as to exclude the air, hang the bottle in a light warm place, but not in the sun.

MRS. E. M. WHEELER.

#### CULTURE OF THE HELIOTROPE TO ENSURE WINTER BLOOMING.

Strike cuttings from the old plants early in March and report as the roots reach the sides of the pot, to the next size. Pinch off the terminals, and if they grow too rank, two or three joints as the plants progress, until the last of August, after which flower buds may be allowed to form.

As soon as the weather is sufficiently warm, plunge the pots in a cool moist border, where they will only feel the morning sun. If dry weather, and should the green fly appear, fumigate. Continue shifting until the plants fill a twelve inch pot, then tie down the side branches so that they will droop and allow the center to grow upright into very compact and bushy dwarf. Before the weather is chilly remove them to a cool light place, give them the benefit of all genial weather and warm rains. Never allow the soil to become dry, neither let it be sodden. Before removing to the room, wash the pot with hot soap suds, outside, and into the moulds, and refill with a rich compost suitable to the plant.

Soil for Heliotropes should be both light and rich, four parts from rotted turf, one powdered charcoal, one sharp sand, one leaf-mould, two rotted manure all sifted together. Select dwarf varieties for pot culture.

E. F. HASKELL.

#### CULTURE OF CALLA (LILLY) ETHIOPIA.

The Calla is a native of the Cape of Good Hope and St. Helena, where it grows in rich soil by the side of rivers. There are four species of this plant. None, however, are considered worth cultivating but Calla Ethiopea, or Ethiopian Lilly. This is much admired for the purity and singularity of its large white flowers, or rather spathe which is culate, leaves sagittate.

The roots, which are tubous, should be entirely divested of the soil they have been grown in, breaking off all the small offsets, and potting them wholly in new earth. This should be done in August or September. According to Mrs. Loudon, the mould should consist of three parts of sandy loam and one leaf-mould or thoroughly-rotted manure. Others who have been successful in the cultivation of this plant recommend the mould of swamps and marshes, as being more like the soil in which the Calla grows in its native state.

According to Bulst the period for repotting the Calla is in March. The pots should be well drained; the plants when potting cannot get too much water. About May or June the leaves will begin to wither about the points, and when this is

perceived the quantity of water should be lessened until at last, only enough is given to keep them alive; and it is the practice of some to discontinue it entirely for a season.

During the time the leaves are dying off the plants should have abundance of light, but when they are all withered they may enjoy complete repose for about a month.

In October or November they should be repotted, particularly if kept in a sitting room where there is a daily fire, and supplied with abundance of water. It should, indeed, always stand in a succor of water. And care should be taken to change the water every day, as it is a well-known principle in vegetation that every plant imparts its own poisonous qualities to the water, after destroying its vital principle, the same as animal respiration vitiates the fresh air.

The plant will not bower if once suffered to become too dry while in the growing state, and it has the extraordinary power of discharging the superabundant water from the points of the leaves in drops. This quality also renders it susceptible of culture as an aquatic plant. Thus treated it will live in the open air all winter, and when the leaves die down the water will keep the roots from frost. The place should be selected on the bottom of a pond, where the water is not more than three feet deep. The plant will not bloom until the leaves are above the surface. They generally bloom in March or April, but by prolonging the season of repose they will bloom sooner.

MRS. E. M. WHEELER.

#### Culture of Bulbous Roots in Pots or Glasses, in the Winter Season.

The culture of bulbous roots in a greenhouse, or light room, during the winter, is comparatively easy, provided two points be attended to: the first is to keep them near the light, and to turn the pots or glasses round frequently, to prevent their growing crooked; and the second is, when the plants have done growing, to give those in pots little or no water; for want of attention to these points, bulbs have been known to produce foliage year after year without showing any blossoms. All bulbs have a certain period of the year in which they are in a dormant state; this, in a state of nature, is invariably after the seeds are ripened; but as in a green house many of this family do not ripen seeds, the cultivator should watch the period when the leaves show indications of decay, at which time the supplies of water should be lessened, and shortly afterward the earth should be suffered to get dry, and to remain so until the season returns when the bulbs regenerate. Many sorts of bulbs are best kept in pots, under the soil, in a dry, shady place, and in the same temperature as that in which they are in the habit of growing; but others, such as Hyacinths, Tulips, Narcissus, &c., may be taken out of the soil and preserved, as before directed, until the proper season for replanting.

Dutch bulbous roots, intended for blooming in pots during the winter season, should be planted during the months of October and November, and be left exposed to the open air until it begins to freeze, and then be placed in the green house, or in a room where a fire is usually made. They will need moderate occasional watering, until they begin to grow; then they should have abundance of air in mild weather, and plenty of water from the saucers underneath the pots while in a growing state; and should be exposed as much as possible to the sun, air and light, to prevent the foliage from growing too long or becoming yellow.

For this purpose, single Hyacinths, and such as are designated earliest among the double, are to be preferred. Single Hyacinths are generally held in less estimation than double ones; their colors, however, are more vivid, and their bells, though smaller, are more numerous; some of the finer sorts are exquisitely beautiful; they are preferable for flowering in winter to most of the double ones, as they bloom two or three weeks earlier, and are very sweet-scented. Roman Narcissus, Double Jonquilles, Polyanthus Narcissus, Double Narcissus, and Crocuses, also make a fine appearance during winter. It is a remarkable circumstance of the Crocus that it keeps its petals expanded during tolerably bright candle or lamp light, in the same way as it does during the light of the sun. If the candle be removed, the Crocuses close their petals, as they do in the



garden when a cloud obscures the sun; and when the artificial light is restored, they open again, as they do with the return of the direct solar rays.

Hyacinths and other bulbs intended for glasses, should be placed in them about the middle of November, the glasses being previously filled with pure water, so that the bottom of the bulb may just touch the water; then place them for the first ten days in a dark room to promote the shooting of the roots; after which expose them to the light and sun as much as possible. They will blow, however, without any run; but the colors of the flowers will be inferior. The water should be changed as often as it becomes impure; draw the roots entirely out of the glasses, rinse off the fibres in clean water, and also the glasses inside; care should be taken not to suffer the water to freeze, as it not only bursts the glasses, but often causes the fibres to decay. Whether the water be hard or soft is of no great consequence; but soft or rain water is generally preferred, and it must be perfectly clear.

Forced bulbs are seldom good for anything afterwards; however, those who wish to preserve them, may immerse them wholly in water for a few weeks; and then having taken them up and dried them in the shade for a few days, they may be planted in a good soil, when they will sometimes flower the second year. It does not clearly appear in what way the water operates when the bulb is wholly immersed; but it is certain that bulbs so treated increase in size and solidity by it, and have an incomparably better chance of flowering the second year than those which have not been so treated. Most probably their total immersion enables them to obtain a greater proportion of oxygen from the water.

Nosegays should have the water in which their ends are inserted changed, on the same principle as bulbous roots; and a much faded nosegay, or one dried up, may often be recovered for a time, by covering it with a glass bell or cup, or by substituting warm water for cold.

Very fine Hyacinths have been grown in a drawing room, in the following novel manner: A quantity of moss, classically called hyssop, and vulgarly fog, was placed in a water-tight box, about eight or nine inches deep, into which the bulbs were placed at the end of September, without mould, and duly watered. The result of this experiment was highly favorable.

**SAVING SEEDS.**—As the season will soon arrive for saving seeds, I thought my way might be some benefit to your readers, and I will give it to them. It is what my grandmother taught me, when a little girl living in Massachusetts, and now that I have settled a few miles from Chicago, and have plenty of garden room, I find it very useful by keeping my seed pure and having fruit some two or three weeks earlier than others who planted at the same time. The first that comes of each kind I let grow and ripen for seed. I save a part of a row of peas, a few hills of beans, a hill or two of corn, that I never pick any from till fully matured for seed. The first squash of each kind, melons and cucumbers, I am very particular should not be picked. By saving the first they are more likely to be pure; the bees are not so plenty as a short time afterwards. Sometimes it is quite a cross to let them be, being the first of season, but I find in a long run I am a gainer. I hope the readers will try this; it will save a good deal of trouble in the fall in going over the garden to see if they can pick up anything for seed. How can we expect choice vegetables, unless we take extra pains about saving seed?

**ROSE PYRAMIDS, &c.**—Everybody loves the rose, and almost every one desires to possess information that will tend to give the greatest possible effect to this pet of the garden and conservatory. It is not as well known, perhaps, as it might be, that to have roses in full perfection of size and color, proper planting and exposure are absolute essentials. The rose requires abundance of air and light, and to look their very best I think that judicious grouping is indispensable. I know no way of accomplishing this more effectually than by pyramidal grouping, that is, forming of a rose pyramid, rising gradually in height from the minutest dwarf at the base, to the tallest standard at the apex. As the varieties are almost endless, it would be impossible to enumerate them. Almost any florist's catalogue will supply the list, and the taste of the operator direct the arrangement. A proper discrimination should of course be manifested as to the time and continuance of blooming, so as to secure the finest possible effect.—*Cor. Cultivator.*

## NATURAL HISTORY.

### FAMILIAR WILD BIRDS.

We give the following interesting extracts from "Goodrich's Animal Kingdom," descriptive of birds we often see, but whose habits are little known. Those who delight in hunting them will do well to better understand their characteristics, in order to be successful.

#### The Wild Turkey.

**Genus MELEAGRIS: Meleagris.**—To this belongs our common wild turkey, *M. gallopavo*. Dindon of the French; now known as a domestic fowl in most civilized countries, but which was confined to America until after its discovery by Columbus; it was probably introduced into Europe by the Spaniards about the year 1530. It was found in the forests of North America, from the Isthmus of Darien to Canada, when the country was first settled, being then abundant, even in New England; at present a few are found in the mountains of Massachusetts, New York and New Jersey; in the Western and South-western States they are still numerous, though constantly diminishing before the extending and increasing settlements. The wild male bird is three to four feet long, and weighs from fifteen to forty pounds; its color is black, glossed with purple and bronzed green; the head and neck are covered with a bare carunculated skin, and at the base of the bill there is a singular fleshy appendage, which is usually of considerable length. The breast is ornamented with a tuft of long black hair.

The habits of these birds in their native wilds are exceedingly curious. The males, called *Gobblers*, associate in parties of from ten to a hundred, and seek their food apart from the females, which either go about singly with their young at that time about two-thirds grown, or form troops with other females and their families, sometimes to the amount of seventy or eighty. These all avoid the old males, who attack and destroy the young, whenever they can, by reiterated blows on the skull. But all parties travel in the same direction, and on foot, unless the dog of the hunter, or a river in their line of march, compel them to take wing. When about to cross a river they select the highest eminences, that their flight may be more sure, and in such positions they sometimes stay for a day or more, as if in consultation. The males upon such occasions gobble obstreperously, strutting with extraordinary importance, as if to animate their companions; and the females and young assume much of the pompous air of the males, and spread their tails as they move silently around. Having mounted, at length, to the tops of the highest trees, the assembled multitude, at a signal from their leader, wing their way to the opposite shore. The old and fat birds, contrary to what might be expected, cross without difficulty, even when the river is a mile in width; but the wings of the young and meager, and of course those of the weak, frequently fail them before they have completed their passage, when they drop, and are forced to swim for their lives, which they do cleverly enough, spreading their tails for a support, closing their wings, stretching out their necks, and striking out quickly and strongly with their feet. All do not succeed in such attempts, and the weaker often perish.

The wild turkey feeds on maize, all sorts of berries, fruits, grasses, and beetles; tadpoles, young frogs, and lizards are also occasionally found in their crops. The pecan-nut is a favorite food, and so is the acorn, on which last they fatten rapidly. About the beginning of October, while the mast still hangs on the trees, they gather together in flocks, directing their course to the rich bottom lands, and are then seen in great numbers on the Ohio and Mississippi. This is the *Turkey Month* of the Indians. When the turkeys have arrived at the land of abundance, they disperse in small promiscuous flocks of every sex and age, devouring all the mast as they advance. Thus they pass the autumn and winter, becoming comparatively familiar after their journeys, and then venturing near plantations and

farm houses. They have been known on these occasions to enter stables and corn cribs in search of food. Numbers are killed in the winter, and are preserved in a frozen state for distant markets. The beginning of March is the pairing period, for a short time previous to which the females separate from their mates, and shun them, though the latter pertinaciously follow them, gobbling loudly. The sexes roost apart, but at no great distance, so that when the female utters a call, every male within hearing responds, rolling note after note in rapid succession; not as when spreading the tail and strutting near the hen, but in a voice resembling that of the tame turkey when he hears any unusual or frequently repeated noise. Where the turkeys are numerous, the woods, from one end to the other, sometimes for hundreds of miles, resound with this remarkable voice of their wooing, uttered responsively from their roosting places. This is continued for about an hour; and, on the rising of the sun, they silently descend from their perches, and the males begin to strut for the purpose of winning the admiration of their mates. If the call of a female be given from the ground, the males in the vicinity fly toward the individual, and, whether they perceive her or not, erect and spread their tails, throw the head backward, distend the comb and wattles, strut pompously, and rustle their wings and body feathers; at the same moment ejecting a puff of air from the lungs. While thus occupied they occasionally halt to look out for the female, and then resume their strutting and puffing, moving with as much rapidity as the nature of their gait will admit. During this ceremonious approach the males often encounter each other, and desperate battles ensue, when the conflict is only terminated by the flight or death of the vanquished. The usual fruits of such victories are reaped by the conqueror, who is followed by one or more females, which roost near him, if not upon the same tree, until they begin to lay, when their habits are altered, with the view of saving their eggs, which the male breaks if he can get at them. These are usually from nine to fifteen in number, sometimes twenty, whitish, and spotted with brown, like those of the domestic bird. The nest consists of a few dried leaves placed on the ground, sometimes a dry ridge, sometimes in the fallen top of a dead leafy tree, under a thicket of sumach or briars, or by the side of a log. The females are particularly attentive to their young.

#### Prairie Hen.

The Pinnated Grouse—*T. cupido* of De Kay and others—*Cupidonia cupido* of Linnæus, Catalogue of the Smithsonian Institution, &c.—is eighteen inches long; blackish-brown, bounded with reddish above; dark brown beneath; the eggs are eight to twelve, of a dull brown color; the male has a slight crest on the head, and a yellow wattle on each side of the neck, like a small orange; this bird is able to inflate with air, and thus to produce a curious tooting sound, which echoes through the woods, and is used as the call to the female. When the tooting is over, these bladders become relaxed. Audubon found, on perforating them with a pin, that they could no longer be inflated. This species goes under the name of *Prairie Hen* and *Heath Hen*, beside that given at the commencement of this article. It feeds on grasshoppers, wheat and Indian corn, which it gathers in the fields, seeds of various kinds, and buds of trees. Their haunts are among fields and grounds covered with bushes or shrub-oaks. One of their habits is thus described by Dr. Mitchell, in Wilson's Ornithology: "During the period of mating, and while the females are occupied in incubation, the males have a practice of assembling, principally by themselves, to some select and central spot, where there is very little underwood, they repair from the adjoining district. From the exercises performed there, this is called a *Scratching place*. The time of meeting is the break of day. As soon as the light appears, the company assembles from every side, sometimes to the number of forty or fifty. When the dawn is passed, the ceremony begins with low tooting from one of the cocks; this is answered by another. They then come forth one by one from the bushes, and strut about with all the pride and ostentation they can display. Their necks are incurved, the feathers on them are erected into a sort of ruff; the plumes of their tails are expanded like fans;

they strut about in a style resembling, as nearly as small may, be illustrated by great, the pomp of the turkey-cock. They seem to vie with each other in stateliness; and as they pass each other, frequently cast looks of insult, and utter notes of defiance. These are the signals for battles. They engage with wonderful spirit and fierceness, leaping a foot or two from the ground, and uttering a cackling, screaming and discordant cry.

#### The Woodcock.

*Genus SCOLOPAX: Scolopax*.—The most noted species is the European Woodcock—*Becasse* of the French, *Beccaccia* of the Italians, and *Waldschnepfe* of the Germans—*S. rusticola*. It is thirteen inches long; weight fifteen to twenty-seven ounces; females a little the largest; color various mixtures of brown; bill very long and straight; the eye large; the eggs three to four, yellowish white, blotched and spotted with gray; habits nocturnal, reposing during the day, and seeking its food, consisting chiefly of earth worms, during the night. It is guided in its search by smell, and strikes its long, sensitive bill with unerring certainty into the mud where its prey lies hid den. It also devours snails, slugs, small beetles, &c. It migrates by night in March and April to high northern regions where it breeds, and returns in August. It is one of the most noted of game birds, and great quantities are killed in the countries where they make a short stay in their migrations. It is common throughout Europe; a few breed in Great Britain. The nest is loosely made of dead leaves, in a dry, warm spot among herbage. The female is attentive to her young, and when surprised will often carry them off in her claws, one at a time, to a place of safety.

The American Woodcock—*S. minor* of Bonaparte, *Philohela minor* of Gray—is but a trifle smaller than the preceding, which it greatly resembles in its form and habits. It, however, does not proceed so far north for incubation. It appears in the Middle and New England States in March and April, and departs for countries south of the United States in October and November. It breeds from Maryland to the St. Lawrence. As in the preceding species, they are enabled to select their food by scent; they often feed in the night, and their eyes are set back in their head so as hardly to be used for the purpose of seeking the objects on which they feed. Their haunts are marshy thickets, where they turn over the fallen leaves and probe the mud, in pursuit of their prey. Whenever surprised in their hiding places they rise in a hurried manner, but soon drop to the ground, then running along and lurking whenever they consider themselves safe. They are greatly esteemed as game, and are hunted with pointers or setters, and shot on the wing. They are common in the markets of Boston, New York and Philadelphia, from August to the 1st of November.

#### Woodpeckers.

These are strong and vigorous birds, possessing a long, sharp bill, with which they bore into the bark of trees, and the decayed parts of the limbs and trunks, in search of insects, as well as to carve out holes for their nests. They live in forests, and run up and down the trees, often ascending in spiral lines, and continually tapping the surface, to discover the hiding-place of insects and larvae. When they find such a spot they dig into it with great energy, and seize the concealed prize. In climbing they are assisted by the stiff points of their tail-feathers. Their tongue is extensile, and thus facilitates the capture of their insect prey. They feed also on fruits and seeds.

There are about thirty species of woodpeckers known in the United States, which have been divided by naturalists into several genera. Dr. De Kay, however, includes them in one—that of *Picus*. The most commonly known is the Red-headed Woodpecker, *P. erythrocephalus*, *Melanerpes erythrocephalus* of Linnæus, eight to nine inches long; head, neck and throat crimson; back, wings, and tail black; secondaries, rump and all beneath nearly white. It is chiefly a summer bird, though a few remain through the year; it feeds on July fruits, cherries, apple, pears, Indian corn in the milk, and insects which infest decayed trees. It makes its nest in holes in dry trees, which it excavates with its bill; the eggs are about six.

and white, with reddish spots at the end; there are two broods in a season. This bird generally lives in the forests, but it often visits the orchards, and in cherry time is a constant visitor to the cherry trees. For some unknown cause it is less abundant than formerly in the Eastern and Middle States.

#### Snipe.

The Common American Snipe—*S. Wilsoni* of De Kay, *S. gallinago* of Temminck, often called *Wilson's Snipe*, and also *English Snipe*, from the fact that it closely resembles the European bird of that name—is eleven inches long; brown and reddish above; beneath white; feeds on worms, leeches, and aquatic insects; migrates northward in March and April, and returns in July and August; breeds from Virginia to 55 degrees north. It has the same habits as the English Snipe, which somewhat resembles the practice of the Night-Hawk—of making wide and lofty sweeps in the air, and then swiftly descending with a whirling, hovering sound, often heard in the gray of the morning and evening, and when the birds are invisible and therefore seeming to come from spirits of the sky. It is almost nocturnal in its habits, and conceals itself with assiduity in the rank grass and herbage of the marshes which it frequents. Like many other birds of this family, it may be decoyed, while in flight, by an imitation of its call. Some of them remain among us until the frost hardens the earth and compels them to depart. Another species, the *Macrorhamphus scolopaceus*, is found throughout the temperate parts of North America. Sabine's Snipe, *S. Sabini*, is a rare European species, little known.

#### MISCELLANEOUS MATTERS.

##### Piccalilli.

Piccalilli is a mixture of all kinds of pickles. Select pickles, from the salt brine, of a uniform size, and of various colors; as small cucumbers, button onions, small bunches of cauliflowers, carrots cut in fanciful shape, radishes, radish-pods, Cayenne-pods, mace, ginger, olives, limes, grapes, strips of horse-radish, &c., &c.

Arrange your selection tastefully in glass jars, and pour over them a liquor prepared in the following manner: To one gallon of white wine vinegar add eight tablespoonfuls of salt, eight of mustard flour, four of ground ginger, two of pepper, two of allspice, two of turmeric, and boil all together one minute; the mustard and turmeric must be mixed together by vinegar before they are put into the liquor; when the liquor has boiled, pour it into a pan, cover it closely, and when it has become cold pour it into the jars containing the pickles; cover the jars with cork and bladder, and let them stand six months, when they will contain good pickles.

Piccalilli is an excellent accompaniment to many highly-seasoned dishes; if well put up, it will keep for years. If you like oil in the piccalilli, it should be braided with the vinegar, and added with them to the boiling liquor.—*German-town Telegraph*.

**LIME.**—The tendency of lime in composts is to promote decomposition—hence it should never be used in connection with fermenting or decomposing substances, as it hastens the formation and evolving of ammonia, which takes from our manures their most valuable properties for promoting strong growth in crops.

#### Turnips.

Many farmers will finish digging their early potatoes this month, and they will find it greatly to their advantage to clear the field and sow it with ruta baga turnips. This crop will reach maturity, if sowed in August and properly cared for during the rest of the season. We have often gathered the largest crops in December, which were sown on potato ground the first of August. They may remain in the ground without injury for weeks after it is slightly frozen. The heat of the sun in the middle of the day will soften the ground so that they can be pulled and safely stowed in pits or in the cellar until the opening of spring, or indeed any time during the winter, when the early milch cows or other cattle may need them. They make a most excellent nutritious food, and keep the cows and oxen in fine heart during the early spring months. Flat or strap-leaved turnips may also be sowed broadcast any time this month, and we have known them to arrive at maturity when put in the ground as late as September. There are also other varieties of this vegetable which give excellent crops, and are highly nutritious for cattle.

**INTRODUCING ITALIAN QUEENS TO THE NATIVE STOCK.**—Mr. Aspinall gave us, near the end of the season, a new method of introducing queens, that has proved so satisfactory, in the few trials that I have given it, that I think it safe to recommend for further trial at least. It is so little trouble in comparison with caging the queen in wire cloth and having her and the bees become acquainted through it before allowing them together, that it should be known. The colony to receive her should be prepared the same as if she was to be introduced in the old way. With this method I take away the native queen, and at the end of the week, take out and look over the combs, destroying all the queen cells. Then, completely besmear the queen with honey, and drop her among the bees. They immediately commence licking her, and seem to forget all about stinging her.—*Ex.*

**DEPTH OF PLOWING.**—A writer in the Agricultural Review, says: "Deep cultivation is inapplicable in the case of sandy soils, except when they rest upon a stiff subsoil, which, however, is rarely the case. If there be simply a thin stratum of stiff clay beneath the sandy soil, it should not always be broken through, as it may prevent the moisture passing away too rapidly as drainage. When friable soil rests on chalk, gravel or sand, deep plowing should not be performed. We have often known manure to be plowed in so deeply that its decomposition took place only after the lapse of several years. Manure, to be efficient, must be as close to the surface as possible, in order that the nourishment afforded by it may be within easy access of the rootlets of the plants."

**Hurry up**, if you wish to secure our Strawberry Premiums—the season will soon be over.



## DOMESTIC ANIMALS

## BREEDING DOMESTIC ANIMALS.

Notwithstanding the great amount that has been written on this subject, we have seldom found the main points in which it is involved so well set forth as in certain propositions laid down by Dr. Hitchman in a lecture before the Derbyshire Agricultural Society. We copy the propositions, connecting with them a few remarks, as follows:

"1. That man has been endowed with the means of controlling and modifying the forms of animals."

"2. That such modified forms can be handed down to the progeny; but being departures from the primitive natural type, the form can only be maintained by assiduous attention on the part of breeders."

The great changes which have been made in the form of animals by what is called the art of breeding, sufficiently proves the first proposition. The main point to be observed in reference to this result, is, to unite such animals, from generation to generation, as possess in the highest degree the desired form. The result may be obtained either by first crossing varieties, or by selections from one variety. As an example of the former course, we may cite the modern Leicester breed of sheep, which originated in a mixture of several breeds, and as an example of the latter, the South Down. But with the exception of the diversity of blood in the first instance, in the case of the Leicesters, the principal of improvement was the same in both breeds. Bakewell, the originator of the Leicesters, having laid what he deemed to be the proper foundation for the new breed, confined his selections of breeding stock to certain cross-bred animals, and continued his course till he had established a breed quite different in its characteristics from any that had before existed. On the other hand, Ellman and his associates and followers, did not go beyond the South Down breed, but selected within that such animals as approximated most nearly to their ideal standard.

The truth of the second proposition, "that assiduous attention on the part of breeders" is required to maintain forms which are widely different from the natural type, is highly important. Animals which are in what may be called an artificial state, cannot be maintained in their perfection without the constant exercise of the same skill by which they have been brought from their original condition. Comparatively few men possess this skill, and hence in many cases, the purchasers of high bred animals do not succeed with them.

"3. That not only because the qualities of the

male can immediately be brought to bear upon larger numbers, but also because of his own special endowments, it is best to seek for improvement of form and quality through him."

"4. That qualities both of the form and of the character become hereditary in proportion to the frequency of the repetition in past generations; but that it is dangerous to breed from any animal with important defects, however high its pedigree."

There is no doubt that the greater number of generations through which any special characters have been maintained, the more firmly are they fixed, and the less likely are they to change. We see this principle illustrated in some varieties of plants. Take, for instance, a variety of Indian corn originating in the mixture of two varieties—as Darling's and Burr's sweet corn. The first crop produced from the hybrid seed is not uniform; some grains resemble one of the parent varieties most, and others the other. To obtain certain properties without variation, the cultivator selects for seed, from year to year, only those grains which are most perfect in reference to the desired properties. By continuing this course the tendency to vary grows less and less, until after a while the product is uniform, and the variety is considered established. In like manner the constant selection for breeding animals producing certain points, rejecting those which do not come up to the standard, results in the stock becoming more uniform.

There will, however, be defective animals, or those which deviate from the desired type, in all breeds. Such ought not to be bred from, "however high their pedigree." Too little attention is paid to this. High pedigree is not, by any means the only requisite in a breeding animal; it should have the points and properties which constitute a good animal. It is only by breeding from such as combine the proper blood with the right form and other properties, that the improvement can be advanced or maintained.

"5. That healthful, well-formed animals, without hereditary taint, even if closely related, may be safely permitted to propagate their kind provided the practice be not continued through many generations."

The expediency of what is called in-and-in, or close breeding, is involved in this proposition. Close observation will convince any candid person that the position arrived at is correct. The fact seems to be, that breeding from near affinities with a good stock brings no injurious results; but that breeding in the same way from a bad stock, or that which has bad hereditary tendencies, results in deterioration. It is well known that some of the most eminent and successful breeders have

frequently united animals quite nearly related. Some of the best of Charles Colling's Short-horn cattle were seven-eighths of the blood of the bull Favorite. The late noted breeder of Hereford cattle, John Price, produced some of his best animals from those closely related. Some striking instances of this kind have lately fallen under the writer's observation. Some of the best Ayrshire cattle—and they are very fine—belonging to Messrs. Brodie, Campbell & Co., and J. F. Converse, of New York, are three-fourths and seven-eighths of the blood of the bull Kelburn. We might cite similar results in horses, sheep, &c. Among the numerous progeny of the late Vermont Black Hawk, some of the best were three-fourths of his blood; and two of seven-eighths blood (the only ones of this grade ever produced) are well known as animals of superior merit.

Bad results, no doubt, may follow, as above intimated, from this course of breeding. The point is, to know in what case it should be followed and in what avoided. In the hands of a judicious and skillful breeder it may be the means of improvement; in the hands of an unintelligent and unskillful one, it will be likely to be injurious.

“6. That female animals, for their first impregnation, should be placed to the best of their own kind, in order to avoid the appearance of stain in any future progeny.”

That the influence of the first impregnation sometimes appears to affect the subsequent progeny, is admitted. Cases of this kind are, however, more rare than is commonly supposed. We will not here discuss the point as to what principle that influence is due. Whatever it may be, or whatever the probability of its operation becoming apparent, the rule of putting female animals to the “best of their own kind,” is a safe one to follow.

“7. That science has not yet revealed any trustworthy arrangement by which the proportion of the sexes can be determined on and secured.”

To this conclusion we think all must come at last, who investigate the matter thoroughly, and without bias.—*Boston Cultivator*.

#### To Insure Eggs for Winter.

Several of your correspondents have been discussing the point as to how to procure eggs in winter. One advises early hatched pullets—a very excellent plan—while, again, another recommends flesh and stimulating food. Perhaps you will allow me to offer a few remarks, which I trust may be found useful. I do not consider age of so much importance as some do; yet, if an old hen has been laying well all summer and autumn, and is consequently late in moulting, she

requires rest and time to recover from the moult; and if cold weather comes on her when but partially moulted, she will perhaps be a long time recovering the condition proper for laying. In this case the early hatched pullet has the advantage; but her eggs are usually small. If however, the old hen is allowed to sit late in summer, so as to rest her from egg-laying, and during the time she is tending her brood she is encouraged to moult, by warmth and generous feeding, she will, when her moult is completed, soon get into laying condition, and, by good management may often be kept laying all the winter, and lay better and larger eggs than pullets. I have two hens, now laying that have not left off laying since October, having completed their moult in September while cooped with their second broods; the one is five and a half years old, the other is one year younger.

My feeding is very plain; they have the run of a small field, and I give them one day a half gallon of barley and oats mixed, among twenty; the rest they must cater for themselves; they are in good condition, rarely clear up all their feed at once, and we have more eggs than we care to eat. To prevent their wanting to sit, I regularly look up all the eggs as laid, and never leave but two eggs in a nest. Most of the twenty are late pullets, that will not lay for a month or two to come.

But there is yet another point which I consider of some consequence, and that is “breed.” Shanghais will lay well, but their desire to sit when they think proper almost unconquerable, very provoking, and not conducive to laying; Spanish, crested, are everlasting layers, exhaust themselves in laying, during the summer, find moulting difficult, and are long recovering from it. Game, in my opinion, lay the most delicious eggs, but they are rather fastidious layers, and sometimes a trifle pugnacious. My present fowls are white Dorkings. I consider them the best of all fowls for general purposes—capital layers sitters, mothers, and for eating; what more can any one want? Do not breed them in-and-in; then they are hardy; if you do, of course and breed will fail. Leave the eggs in the nest, and they will sit when enough are laid; take all away and they forsake the nest. They are first rate for table; their uniformity is pleasing, their white plumage protects them against the sudden changes of our variable climate, and the feathers being all white are the more valuable for beds.—*Cor. London Field*.

**SURE DEATH TO VERMIN.**—Persons troubled with rats, mice, roaches or other pests had better get a box of “*Coulter's Vermin Exterminator*,” and fill their premises of the same. It never fails to kill, and is said to be harmless to its possessor's effects upon individuals.

## DETROIT MARKET PRICES,

Ending August 21st, 1893.

Carefully corrected just before going to press, by

C. L. CROSBY &amp; CO.,

Commission Merchants and Dealers in Fruits, and Western Produce generally. No. 160, Woodward Avenue, Detroit, Mich.

White Wheat	bu.	In demand and firm	\$1 20@1 25
Red Wheat	do	nothing doing	1 02@1 05
Corn, Shelled	do	nominal	0 55@0 56
do in the ear	do	quiet and nominal	0 50@0 56
Oats	do	declined new crop	40c. old 45c.
Rye	do	declined and quiet	0 65@0 70
Barley, new	cwt.	no transactions	2 25@2 60
Potatoes, Neshannocks	bu.	declined and dull	0 35@0 37½
do common	do	do	0 22@0 30
Apples, bbl.	"Harvest bow,"	supply equal to demand	1 50@1 60
do dried bush	do	good demand and firm	1 00@1 10
Seed clover	do	nothing doing	4 50@5 00
do timothy	do	dull nominal	1 75@2 00
Beans	do	steady demand	2 50@3 25
Onions	do	in fair supply & active	0 90@1 00
Turnips	do	do	0 00@0 20
Cider, bbl.	wanted	none offering	8 50@4 00
Butter, fresh roll	lb.	firm and scarce	0 14½@0 15
do skrin	do	quiet but firm	0 14@0 15
Peaches, green	bu.	new crop	8 00@8 00
Venison	do	none in market	0 60@0 07
Eggs	doz.	market overstocked & heavy	0 08½@0 09
Pork, best dressed	cwt.	nothing doing	4 50@5 00
do do	bbl.	fair demand & firm	11 00@12 50
Beef, best dressed	cwt.	declined	4 00@5 50
Mutton, dressed	lb.	advanced to	0 06@0 07
do live	do	advanced to	0 05@0 08
Hides, green	do	advanced to	0 06½@0 07½
do dry	do	advanced to	0 14@0 15
do green calf	do	advanced to	0 19½@0 20
do dry do	do	advanced to	0 25@0 30
Sheep skins each	do	declined	2 00@3 00
Wool fine grade	lb.	lower and unsettled	0 55@0 60
Canada coarse clean fleece	do	do	0 48@0 50
Chickens dressed per pair	do	nominal	0 87@2 50
do live	do	do	0 30@0 40
Hay ton new and old	do	declined	8 00@9 00
Cheese	lb.	steady and firm	0 10@0 14
Corn Meal	cwt.	very dull	1 20@1 25
Coarse middlings	do	do	14 00@15 00
Salt	bbl.	declined	0 00@2 60
Flour	do	declined and quiet	4 50@6 25
do buck wheat	cwt.	none in market	1 75@2 00
Lard	do	declined and quiet	0 05@0 09½

WHITE WHEAT.—No. 1 white wheat is in demand at our quotations, but none of consequence offering.

RED WHEAT.—Is in fair supply but market continues quiet without sales—holders are firm.

CORN.—Is steady, but very little doing.

OATS.—Have materially declined, but market is firm at quotations.

POTATOES.—Are offering freely, and prices favor buyers.

APPLES.—Are in full supply and market is active.

EGGS.—Market overstocked and exceedingly dull, prices nominal.

WOOD Active—Good Hickory, \$4.50 a 5.00. Beech an Maple \$4.00 a 4.50; mixed Wood Beech, Ash, &amp;c., at \$3.50 a 4.00. Green ranges from 20 to 30 cents lower than well-seasoned or dry. Trade brisk and much arriving on vessels.

## NEW YORK MARKET.

Compiled for the Farmer from the latest New York advices to the date of going to press.

FLOUR.—The market for fresh-ground flour is quite firm at \$7.50. Moderate demand for old, dull and drooping at \$4.40 a 4.50 for extra, State; \$5.15 a 5.40 for extra round hoop Ohio; and \$5.45 a 5.70 for extra trade brands—market closing quiet.

WHEAT.—About 10 lower. Only moderate export demand at 80¢ a 1.10 for Chicago spring; 91¢ a 1.18 for Milwaukee club; \$1.15 a 1.23 for winter red western; \$1.23 for common white Ohio; \$1.42 for white Michigan.

CORN.—A shade firmer with fair demand at 68½¢ a 69¢ for shipping mixed western—Prims 2¢ a 3¢ advanced.

OATS.—Lower with moderate business at 51¢ a 56¢ for western—\$2.10 lower.

BEANS.—Very firm and in demand. \$3.85 a 3.50 for marrowfat—\$3.85 a 4.50 for mediums.

PORK.—A shade firmer and in moderate demand at \$11.50 a 11.75 for old, mess; \$13.50 for new, do; \$10.50 a 10.75 for new prime; \$18 a 16 for new prime mess.

BEEF.—Steady at \$5.50 a 7¢ for country mess; \$4.45 a 5¢ for country prime; \$10.30 a 14.50 for repacked mess; \$18 a 15 for extra mess.

LARD.—Firmer with less doing at 8½¢ a 10, and small lots very choice at 10½¢ a 12, advanced.

BUTTER.—Firm and active; the sales include Western and Ohio at 15¢ a 17¢ for common to prime.

CHEESE.—Slightly declined, with a moderate export demand. We quote Ohio at 8¢ a 10¢.

## RUSSELL'S STRAWBERRY.



THIS great Strawberry combines all the properties to make it the best Strawberry yet known—after seven years' trial being the largest and most prolific bearer—color, fine varnished scarlet, with exceeding rich aroma, full of vinous juice, and for deliciousness unsurpassed—fruit firm, and does not injure by remaining upon the vines—very hardy in its growth, enduring severe frosts.

The Fruit Growers' of Western New York, at its summer session, at Rochester, June 24th, 1893, reported at follows thro' its Fruit Committee, of which M. B. BATEMAN, of Ohio, was Chairman:

"Upon the tables they find a very fine show of Russell's Prolific Strawberry. The fruit is of large size, measuring over six inches in circumference in some instances; the color bright red, and the quality very good. It seems to be very productive. A single plant or hill on exhibition from Mr. Russell's garden, four years old, had upon it 226 berries in different stages of growth, and these, when ripened, would measure some three quarts or more. This fruit was exhibited by G. CLAPP, of Auburn."

Charles Downing, visited them in bearing, and spoke highly of Russell's Prolific.

At the Fruit Growers' Exhibition at St. Catharines, C. W., June 25th, 1893, Dr. Beadle, Chairman of the Judges, reports: "A Strawberry named 'Russell's Prolific' was exhibited, which cannot be surpassed in flavor and perfection."

The Syracuse Courier says:—"It is generally understood and believed, that strawberries of a large growth lose their luxurious flavor, and grow sour, but this is not the case with the Russell Strawberry, the largest we have ever yet seen."

The Northern Christian Advocate, Auburn, N. Y., of July 8, says:—"In this city, on the 4th inst., the Russell Prolifics were selling at 25 cents a basket, when the Wilson, (a favorite with many,) brought only 8 cents; and the demand for the Russell was greatly beyond Mr. Clapp's power to supply."

JOHN J. THOMAS, editor of the Country Gentleman, Albany, who personally examined the beds in bearing, says, July 8, '93: "It appears to come fully up to all that is said in its favor. On comparing it with the Wilson, the Russell was found to be, so far as we could judge, even more prolific than that fir-famed prolific variety, about equally firm in flesh, nearly double in size, and greatly superior in flavor. If its good qualities are maintained after it has been fully tried in different localities, it will not be surpassed, and perhaps not equaled by any other sort."

The Poughkeepsie Daily Eagle says:—"The Poughkeepsie Horticultural Club, on the 1st of July, 'were favored with a beautiful exhibition of Russell's Prolific Strawberry, from specimens raised by Mr. Edwin Marshall. This berry bids fair to eclipse the famous Wilson. It is larger, equally prolific, and the flavor of the fruit is less acid. The product of one plant, exhibited by itself, showed a wonderful degree of productiveness."

Good genuine plants, well packed, will be sent out after the 15th of August, for \$1.50 per dozen, or \$3 per 100, cash to accompany orders. No plants sent, less than one dozen.

Address

GEO. CLAPP,

Auburn, N. Y., July 28, 1893.

AUBURN, N. Y.

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DENTIST.

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Teeth filled with Crystal Gold, Stanniel Foli or Cement.

Teeth inserted on Pivots or set in on Plates of any kind that may be desired, either in full or in partial Sets. All business in his line will be executed in a neat and satisfactory manner and upon the most approved methods.

Premium taken at the State Fair of 1893.



## Secure our Premiums.

The season is fast approaching when it will be necessary for us to send our Premium Grape Vines and Triumph & Gand Strawberries. We have made arrangements to secure the best of each variety. Those wishing to secure either the Strawberries or Vines must send in the names before the first of October, as it will be rather late to plant after that time. We trust that our friends will make an effort at every County Fair to get up a list of new subscribers. We shall be at the State Fair at Kalamazoo. Those sending single or a number of subscribers will please to designate which they desire—Maps, Strawberries or Grape Vines. Remember—the MICHIGAN FARMER now contains more reading matter than any other monthly agricultural journal in the United States.

## OPINIONS OF THE STATE PRESS.

We give below some of the many expressions of goodwill which our brethren of the press of the State of Michigan entertain for the welfare and usefulness of the Farmer, as a home Agricultural Journal. We return our thanks to all of the *par nobile fratrum Arti des Artes* for their helping hand. Our subscribers can read and judge:—

**THE MICHIGAN FARMER.**—This excellent farmers' monthly has recently been materially enlarged and much improved, and is now one of the largest agricultural monthlies in the United States. The form has also been altered, so that the work is now more easy to handle, besides being in better shape for binding. Among other improvements, the proprietors have introduced that of colored plates, representing choice varieties of fruit in their natural colors, while the journal, as before, is profusely embellished with wood engravings on various subjects of interest to the farmer. The energy and zeal of the publishers to supply the farmers of Michigan with a first-class agricultural journal, should meet with liberal encouragement from those interested in agricultural pursuits. The price of the Farmer is only one dollar per year, and, besides this, liberal premiums are offered to persons getting up clubs. Address Messrs. Bond & Snyder, publishers, Detroit.—*Detroit Free Press.*

**THE MICHIGAN FARMER.**—This valuable journal is now printed in book form of fifty pages, and is otherwise improved. The price is the same as of old—\$1 per year,—which is so low that it is within the reach of every farmer, and every farmer ought to subscribe for it. The premiums are the largest ever offered. They offer to each subscriber a nice pocket map, or twenty-five choice strawberry plants; for every three new subscribers, a choice Delaware grape vine, and for five new subscribers, 200 choice strawberry plants, or two Delaware grape vines, or Mrs. L. B. Adams' beautiful book of poems, entitled "Sybille." This is not only the best and cheapest agricultural journal in the State, but one of the best in the Union, "whose reputation" it bears everywhere. Published by William S. Bond & George Snyder, Detroit, Mich.—*Michigan City Sentinel.*

**THE MICHIGAN FARMER.** has just commenced a new volume, and is very much improved. It is now one of the best agricultural papers in the country, and is certainly the best for our Michigan farmers. The one illustrated article, in the July number, on the proper method of pruning the peach tree, is worth the price of a year's subscription.

Encourage home enterprizes, and instead of sending to an eastern city for an agricultural paper, take your own. What

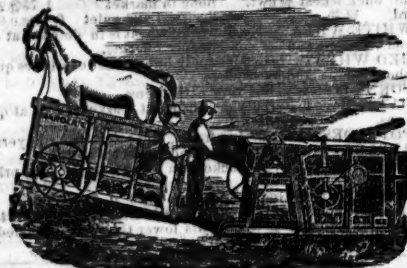
do the people in Rochester know about farming in Michigan? Eastern papers may advise on all subjects that have a general application, but it cannot be put to a practical use, like an interchange of opinion among the farmers of this State.—*Van Buren Co. Tribune.*

**FRUIT TREES, &c.**—Farmers in want of Fruit Trees for Fall planting, will do well to send for the catalogues of Ellwanger & Barry, "Mt. Hope Nurseries," Rochester, N. Y., or George Baker, of "Toledo Nurseries," or Hall & Co., "Hickory Grove Nurseries," Toledo, Ohio, each have their specialties worth examining before selecting.

**ROSELL'S STRAWBERRY.**—This new variety of Strawberry that has attracted so much notice from the principal and most reliable horticulturists of the country, and in numerous horticultural exhibitions and journals is now within the reach of purchasers. It can be furnished by Mr. George Clapp, of Auburn, N. Y., at \$1.50 per dozen or \$9.00 per hundred. If it possesses the fine qualities claimed for it, it is certainly one of the best strawberries now known.

**WAR HAS ITS TRIUMPHS, SO HAS PEACE.**—While the armies of the Union were winning brilliant victories, the *Chemical Saleratus* was enjoying a series of uninterrupted triumphs over the popular aversion to all saleratus, because the common kinds in use were found to be destructive. Science had demonstrated that the *Chemical Saleratus* was not only pure in its nature, but wonderful in its effects, producing better bread and biscuit than any other kind of saleratus or soda known.

**Buy the Best! It is Cheapest  
IN THE END**



THE RAILWAY HORSE POWER WHICH TOOK  
**FIRST PREMIUM**

**New York State Fairs of 1860 and 1862,**  
As it has also at every State and County Fair at which the Proprietors have exhibited in competition with others. This they believe cannot be said of any other Machine exhibited at an equal number of Fairs.

**COMBINED THRESHERS AND CLEANERS**  
Thrashers, Separators, Wood Saws, &c.  
**ALL OF THE BEST IN MARKET!**

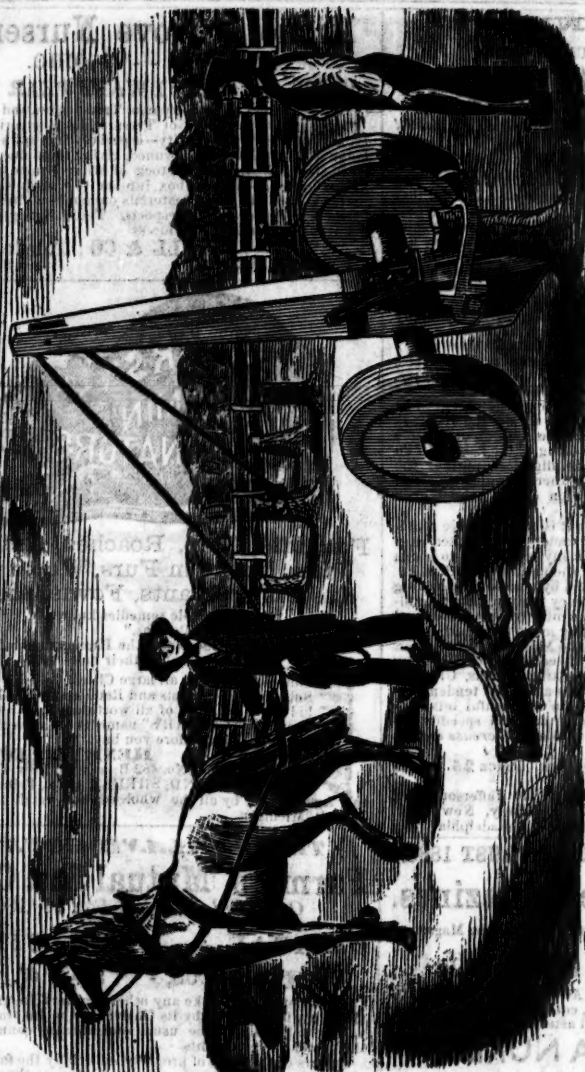
These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of Horses, being only about 1½ miles per hour when doing a good fair business, which is about 800 to 600 bushels of Oats per day, or half that quantity of Wheat or Rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business without waste or clogging than any other Two Horse Cleaner before the public.

For price and description send for Circular, and satisfy yourself before purchasing. Address

**R. & M. HARDER,**  
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And will pull all ordinary sized GRUBS with ONE TEAM as fast as you can hitch them. Territory and Machines for sale. Address

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In this work Baron Liebig has given to the public his mature views on Agriculture, after sixteen years experiment and reflection.

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## Strawberry Plants.

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September, 1862.

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WILLIAM H. FULLER, Treasurer. 1y6b

We have received Godey's Lady Book, Arthurs Home Magazine, Frank Leslie's and the Atlantic Monthly for August and September, they are teeming with variety. For sale by Roys, Newsdealer.



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